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MERTON L. EMERSON, '04

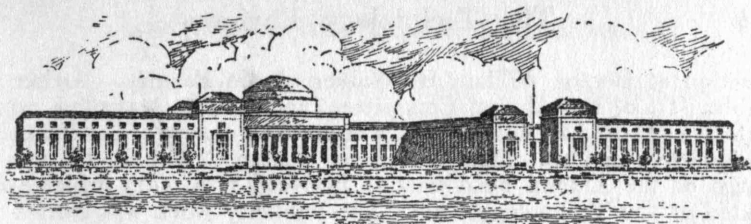
Director of the Educational Endowment Fund Drive

# technology review

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ROBERT E. ROGERS, *Editor*, Massachusetts Institute of Technology, Cambridge, Mass.

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## REPORT OF THE ALUMNI COMMITTEE ON THE EDUCATIONAL ENDOWMENT FUND

THIS Committee was appointed on October 17, 1919 and held its first meeting on that same day. At this meeting it was the general opinion that not over two and one-half million dollars out of the four millions required could be obtained by contributions, particularly since \$700,000 was the record of the previous Alumni campaign. It seemed apparent, therefore, that the balance, \$1,500,000, would have to be raised in some other manner, and in this thought a plan was suggested that proved to be the germ of "The Technology Plan."

The Alumni Committee in its campaign supplemented the work which already had been started by a committee of the Corporation. The Corporation Committee was appointed in the early spring and had raised, as of November 1, \$1,225,000 from twenty-one persons, the larger number of whom were prominent Alumni.

The results obtained in this campaign are shown graphically on the attached chart. The total amount raised was \$8,154,224.00. This is divided as follows: From George Eastman \$4,000,000; from 9,570 additional contributors \$2,937,649; from 195 retainers under "The Technology Plan" \$1,216,575.

This money has been raised from individual subscribers under agreement that their obligation is a moral one, not a legal one, and that the income from the Fund is to be used for the purpose of improving and enlarging the educational services of the Massachusetts Institute of Technology. This Fund has been accepted by the Corporation of the Institute by a vote.

The general plan of the Alumni campaign was laid out in the so called "Red Book," which was sent to all committee heads. These committee heads formed the general committee of one thousand members, to whom all credit is due for the results obtained.

The campaign itself was divided into two sections: one called "Give," and the other "Get." The "Give" section was under the direction of I. W. Litchfield, '85, and the "Get" section under the

direction of Doctor William H. Walker of the Faculty. Arthur R. Stubbs, '14, of the Alumni Committee, acted as its travelling representative. Harold E. Lobdell, '17, was in direct charge of the campaign headquarters in Cambridge. Reverend George C. Gibbs, '00, was in charge of the Alumni headquarters in New York City which were located at the Technology Club. The publicity work was carried on by Walter B. Snow, '82, and staff.

The necessary machinery for the campaign was built up around the Alumni office under the direction of Miss M. E. Shepard, with an organization of about eight stenographers, six bookkeepers and six or eight clerks. In addition, two clerks were used in the New York office and general clerical assistance was provided by the committees in the various cities as well as to the class committees.

The "Give" section of the campaign was so laid out that every former student would be approached from at least three angles, *viz.*, by the direct solicitation of the general committee, by representatives of his class and by associates in his district. The Association of Class Secretaries was a means for reaching the men through their classes, and the local Alumni Associations for reaching them through their districts. In Greater Boston the class representatives carried out both functions. In addition, the New England States were organized with special committees for each city and district, whose functions were not only to organize their respective Technology men, but to secure contributions and contracts from all persons who were interested in Technology.

The "Get" section of the campaign was carried out as a second stage of the work of these same committees. In addition, three special committees—one covering Boston, one, Greater Boston, and one, New England—carried out intensive work along the same lines. Particular attention was also given to the question of securing contracts by certain prominent Alumni in various cities of the country. Special mention in this connection should be made of the trip taken by Dean Alfred E. Burton to the Pacific coast, in which he not only stimulated Alumni interest, but laid particular emphasis on the advantages of co-ordination between industry and Technology under the conditions of "The Technology Plan."

The plan of the campaign as outlined in the Red Book was closely followed. This plan was supplemented by weekly letters, by special reports sent out from the Cambridge headquarters, by correspondence and by personal visits which were made by representatives of the committee in the different districts. In general, it can be said that the plan was worked out as a national sales campaign. As far as possible, every former student was personally seen by a member of a committee. In addition, more than a dozen bulletins of general information setting forth the needs of the Institute and progress of the campaign were mailed to every former student.

In addition to the class and district committees, the following special committees were organized and did excellent work:

A committee on Undergraduate Subscribers, Norris G. Abbott, Senior Class President, Chairman.

A committee on Fraternities. Stephen Bowen, '91, Chairman.

A committee on United States Army School of Military Aeronautics. Professor C. B. Breed, '97, Chairman.

A committee on the United States Naval Aviation Detachment. Professor Harrison W. Smith, '97, Chairman.

A committee on "Who's Who." Walter Humphreys, '97, Chairman.

A committee on Boston Proper. Lawrence Allen, '07, Chairman.

A committee on Greater Boston. E. S. Mansfield, '96, Chairman.

A committee on New England. B. S. Hinckley, '99, Chairman.

A committee on Industries. Horace Ford, Chairman.

In addition, there were special committees for the textile, shoe and leather, and other industries, and special committees in the various large corporations, such as the Goodyear Tire and Rubber Company, The United States Rubber Company, American Telephone and Telegraph Company, Stone & Webster, etc.

The heads of the various departments at the Institute were of particular assistance to the Committee through the work which they did of writing personal letters to various former members of their courses who had not responded to appeals sent out by the class or district committees.

The work of the undergraduates, in particular, deserves special mention since it was an inspiration to the entire Alumni. Out of some three thousand men, of whom one thousand are affiliated with other colleges, eighty per cent subscribed.

Particularly constructive work was done by the special committees throughout Greater Boston and New England which were organized in various cities and communities by Mr. Mansfield's committee. In the cities and towns which make up Greater Boston it was found that a great many Technology men resided who did not know each other. This fact can best be understood when it is realized that some three thousand Technology men live within the environments of Greater Boston. The getting together of these men into closer association is beneficial not only to Technology, but to the community.

The committee discovered in laying out its work the fact that a "Register of Former Students" had not been published since 1915. The Corporation therefore authorized the getting together of material for a new "Register of Former Students," and with this information it was possible to correct the mailing lists.

The regularity of the "Income" curve from November 1 to January 10, as shown on the chart, indicates that the campaign was kept under even pressure.

The campaign had but one upset and this is clearly shown in the "Number of Subscribers" curve on the chart on December 5. On that date announcement was made of the "Frick Bequest." The number of contributors immediately fell off, but publicity stating that Frick was not "Smith" and that the size of the bequest was in doubt, together with activity on the part of the various committees, soon again straightened out this curve. The results obtained were not only the raising of the required amount considerably within the time originally set, but also in more closely knitting together all former students of Technology by reason of the work and service which they carried out for Technology in this critical period of its history.

Finally, the closest co-operation existed between members of the Corporation and the Alumni Committee, and these men and Doctor Maclaurin were ready at all times to act upon every suggestion and to give all possible assistance.

The campaign reached its first mark of \$3,000,000 on December 16, and its final mark of \$4,000,000 at 4.50 P.M. on January 9. At that time not one cent had been held back nor underwritten, although it was planned to close the intensive drive on the following day and to celebrate its completion at the Alumni banquet in the evening of that day. At the hour that the four million dollar mark was reached, Doctor Maclaurin had left his office and had gone to his home and was preparing to go out to dinner. The chairman of this committee talked with him by telephone and informed him of the goal being reached. Shortly after that hour President Maclaurin was stricken with what proved to be his last illness. The committee cannot feel other than that this Endowment Fund, President Maclaurin's last great work, will always be remembered as associated with his name.

ARTHUR R. STUBBS, '14,  
EDWIN S. WEBSTER, '88,  
I. W. LITCHFIELD, '85,  
W. H. WALKER,

WILLIAM H. KING, '94,  
FREDERICK K. COPELAND, '76,  
BRADLEY DEWEY, '09,  
MERTON L. EMERSON, '04  
*Chairman.*

# LIST OF CONTRIBUTORS TO THE ENDOWMENT FUND

## ALUMNI

### CLASS OF '68

Buck, Stuart M.  
Conant, Whitney  
Forbes, Eli  
Ladd, William J.  
Richards, Prof. Robert H.  
Safford, Edward S.  
Stevens, Eben S.  
Stone, William E.  
Wheeler, Daniel M.

### CLASS OF '69

Abbot, Abiel J.  
Blashfield, Edwin H.  
Brodie, James K.  
Carson, Howard A.  
Revere, Joseph W.

### CLASS OF '70

Bixby, William H.  
Brewster, William W.  
Burton, Hazen J.  
Cross, Prof. Charles R.  
Dickinson, William C.  
Hayward, William P. G.  
Henry, William T.  
Hinman, Charles W.  
Loring, David  
Mason, Sampson D.  
Orvis, Christel  
Osgood, Josiah A.  
Sanford, Oliver N.  
Whittlesey, Walter

### CLASS OF '71

Appleton, General Francis  
Henry  
Bush, Dr. J. Foster,  
Butler, Max E.  
Coolidge, Herbert  
Emmons, Arthur B.  
French, Daniel C.  
Fuller, Frank L.  
Greenough, Malcolm S.  
Howe, Henry M.  
Pope, Prof. Thomas E.  
Rollins, Edward W.  
Stearns, William C.  
Stone, Charles F.  
Wead, Charles K.

### CLASS OF '72

Allen, Prof. C. Frank  
Brewster, Benjamin E.

Buck, Walter  
Carpenter, Edwin J.  
Darling, Elmer A.  
Dunn, George B.  
Emmerton, Frederic A.  
Fallon, John H.  
Hodge, James M.  
Hunt, Charles H.  
Joslin, Miss Rebecca R.  
Patch, Maurice B., "In  
Memory of"  
Stafford, Fred H.  
Thatcher, Harry L.  
Upton, Edgar W.  
Wales, William Q.

### CLASS OF '73

Anonymous  
Barnard, Charles I.  
Belden, Charles A.  
Blaisdell, Hiram W.  
Borden, Philip D.  
Brooks, Charles B.  
Brotherton, William E.  
Bush, Samuel D.  
Carpenter, George O.  
Carruth, Charles T.  
Chapman, James R.  
Cogswell, Henry P.  
Dexter, Wallace D.  
Dexter, Walter M.  
Dyer, William F.  
Felton, Samuel M.  
Fisher, Fred L., "In Mem-  
ory of"  
Forbes, Arthur W.  
Greenleaf, Edward H.  
Guild, Frederick  
Haines, Prof. Walter S.  
Hammond, Edgar B.  
Hayes, General Edmund  
Henderson, John A.  
Humphrey, William  
Johnston, Albert W.  
Kimball, George H.  
Leman, William T.  
Lodge, H. Ellerton  
Mansfield, Albert K.  
Phillips, Henry A.  
Ripley, Henry L.  
Shailer, Robert A.  
Stone, James E.  
Tinkham, Samuel E.

Tompson, George M.  
Toppan, Charles B.  
Very, Frank W.  
Wells, Webster, "In Mem-  
ory of"  
William, Dr. Francis H.

### CLASS OF '74

Adams, Joseph S.  
Arnott, James L.  
Baldwin, Loammi F.  
Barrus, George H.  
Bee, Albert W.  
Blunt, William T.  
Bouv  , Walter L.  
Brown, Samuel J.  
Chase, John C.  
Colt, Samuel P.  
Crosby, Benjamin L.  
Crosby, William O.  
Cunningham, Charles G.  
Doane, George E.  
Elliot, George B.  
Elliot, George T.  
Emerson, Joseph S.  
Fish, Charles C. R.  
Flanders, Sherman L.  
Haberstroh, Charles E.  
Hamilton, Edward R., "In  
Memory of"  
Holbrook, Elliot  
Howard, Charles P.  
Knight, Edmund O.  
Lamb, Henry W.  
Leatherbee, Charles W.  
Lee, Francis W.  
Loring, Robert P.  
Luchars, Alexander  
Mansfield, Gideon M.  
Mudge, Henry N.  
Nickerson, William E.  
Pond, Frank H. "In  
Memory of"  
Read, Charles F.  
Robinson, William P.  
Russ, Willis R.  
Sampson, Thomas H.  
Schwab, Emil  
Shove, Charles M.  
Stevens, Harold W.  
Tenney, Frank P.  
Wetherell, George H.  
Wilder, Stephen H.



## CLASS OF '75

Atkinson, Richard S.  
 Bates, Walter C.  
 Beal, B. Leighton  
 Bowers, George  
 Burnet, M. De Witt  
 Burrison, Henry K.  
 Cabot, Dr. John  
 Channing, Giovanni E.  
 Church, Christopher A.  
 Dabney, Frank  
 Dabney, Herbert  
 Dorr, Edgar S.  
 Edes, William C.  
 Goodale, Charles W.  
 Hammatt, Edward A. W.  
 Hibbard, Thomas  
 Homer, Joseph W.  
 Howe, J. Murray  
 Jewett, Stanley P.  
 King, Herbert G.  
 Lewis, Wilfred  
 Lincoln, Edwin H.  
 Little, Arthur  
 Lyman, Frank  
 Marion, William C.  
 Mixter, Dr. Samuel J.  
 Oxnard, Benjamin A.  
 Prentiss, William A.  
 Roby, Luther A.  
 Ruddick, William H.  
 Shockley, William H.  
 Simonds, Henry  
 Slade, Abbott E.  
 Smith, Morrill A.  
 Smith, Robert B.  
 Staniford, Daniel  
 Stanwood, James B.  
 Stoddard, George H.  
 Temple, Arthur W.  
 Webster, William R.  
 Whittemore, Omar W.

## CLASS OF '76

Allen, Charles F.  
 Atwood, William P.  
 Barrows, Prof. Walter B.  
 Brazer, Ralph F.  
 Codd, William F.  
 Copeland, Frederick K.  
 Crosby, Prof. William O.  
 Draper, George A.  
 Freeman, John R.  
 Giles, Dr. J. Edward  
 Henck, John B.  
 Hodgdon, Frank W.  
 Hopps, Arthur D.  
 Hubbard, Charles W.  
 Jacques, William W.  
 Kendall, Henry H.  
 Kilham, Alfred C.  
 Lavery, George L.  
 Learned, Francis M.

Lewis, Theo. J.  
 Main, Charles T.  
 Mills, Arthur L.  
 Morton, George A.  
 Phipps, David W.  
 Prince, George T.  
 Raeder, Henry  
 Sawyer, Charles A.

## CLASS OF '77

Anonymous  
 Alden, John, "In Memory of"  
 Andrews, Robert D.  
 Bachelder, Charles S.  
 Bacon, Francis H.  
 Baldwin, George J.  
 Barnes, Wilfred  
 Bartol, George  
 Beeching, William H.  
 Bradford, William B.  
 Brown, Harry A.  
 Capen, G. Walter  
 Carter, Henry H.  
 Clarke, Charles A.  
 Clement, Erskine  
 Colgan, Charles J. "In Memory of"  
 Cowdrey, Edward G.  
 Davis, Edward W.  
 Decatur, Stephen  
 Evans, Howard  
 Everett, Arthur G.  
 Fairbanks, Warren E.  
 Faunce, Linus  
 Flint, George L.  
 Gay, Martin  
 Gill, Clarence  
 Glover, Albert S., "In Memory of"  
 Gowing, E. Harley, "In Memory of"  
 Gray, Joseph P.  
 Grover, Edmund, "In Memory of"  
 Hale, Richard A.  
 Hallett, William L.  
 Hardman, John E.  
 Hewitt, George H.  
 Hibbard, Henry D.  
 Higgins, Byron E.  
 Holbrook, Henry L.  
 Holman, Francis C.  
 Jacques, Herbert "In Memory of"  
 Kittredge, George W.  
 Lane, Henry M.  
 Lawton, Charles F.  
 Lawton, William H.  
 Leach, Lucius M.  
 Mann, George R.  
 Monks, Dr. George H.  
 Mudge, Benjamin C.  
 Norton, Charles H.

Peabody, Prof. Cecil H.  
 Plimpton, Arthur L.  
 Pond, Wallace R.  
 Quinby, George F.  
 Sherman, Frank I.  
 Skinner, Frank C.  
 Southworth, Harry C.  
 Spalding, Frederic P.  
 Stimpson, Thomas F.  
 Swain, Prof. George F.  
 Taber, Edward G.  
 Thayer, Arthur W.  
 Walker, Elliot  
 Wheelock, Charles B.  
 Williston, B. Thomas  
 Wood, Frederick W.  
 Woodward, Edwin C.

## CLASS OF '78

Anonymous  
 Adams, William W.  
 Allbright, William B.  
 Baker, Charles M., "In Memory of"  
 Beebe, Frank H.  
 Brigham, Arthur A.  
 Bronson, Frank P.  
 Brown, Jacob F.  
 Capen, Miss Bessie T.  
 Chappell, Harry W.  
 Collier, Edmund P.  
 Corser, Frederic G.  
 Cotton, Leslie  
 Dan, Takuma  
 Fisher, William B.  
 Flint, Albert S.  
 Gay, Francis  
 Henshaw, John O.  
 Higgins, Alfred S.  
 Josselyn, Henry S.  
 Kendall, William M.  
 Lewis, Ion  
 Longfellow, Alex. W.  
 Lovering, George G.  
 Nye, Joseph K.  
 Peabody, Henry G.  
 Pierce, Dean  
 Rackemann, Charles S.  
 Reed, Harry E.  
 Ritchie, James  
 Robertson, Richard A.  
 Rollins, James W.  
 Sargent, John W.  
 Schwamb, Prof. Peter  
 Sohier, William D.  
 Taylor, Eugene H.  
 Williams, Emile F.

## CLASS OF '79

Batchelder, J. Frederick  
 Blake, George F.  
 Braley, Samuel T.  
 Brunner, Arnold W.

Cabot, John W.  
Cutler, Edward A.  
Dunbar, W. Otis

Eyre, Wilson  
Fabens, George W.  
Frost, Charles S.  
Fullerton, Hal B.  
Garratt, Allan V.  
Goss, William F. M.  
Harlow, Alfred B.  
Haseltine, William S.  
Howe, Louis P.  
Kimball, William N.  
Lodge, Prof. Richard W.  
Loring, Frederic R.  
Melcher, George S.  
Montgomery, Harry M.  
Morgan, Richard H.  
Pickering, Prof. William H.  
Rea, William H.  
Sargent, Sullivan A.  
Seabury, B. Hammett  
Smith, Frank L.  
Spicer, Vibe K.  
Stearns, William S.  
Tibbits, James H.  
Woodbridge, S. Homer

## CLASS OF '80

Barton, Prof. George H.  
Benedict, William L.  
Chase, Edwin E.  
Childs, Sumner W.  
Cobb, Henry I.  
Day, Henry B.  
Foote, Orlando K.  
Hamilton, George W.  
Hussey, Charles M.  
Johnston, Clarence H.  
White, Miss Laura R.

## CLASS OF '81

Abbott, Ira  
Allen, John H.  
Anderson, Newton M.  
Barnes, T. Howard  
Bohlen, Oscar D.  
Briggs, Frank H.  
Brown, Edmund H.  
Cutler, Harry H.  
French, David W.  
Frost, Walter E.  
Hill, Arthur E.  
Kendall, Fred P.  
Lewis, Edwin J. Jr.  
Norris, Webster  
Ordway, Mrs. John M.  
Revere, William B.  
Rogers, James S.  
Rosing, William H. V.  
Stearns, Harold E.  
Sweet, Henry N.  
Walsh, Frederick T.

Winslow, Arthur  
Woodward, Miss  
Elizabeth J.

## CLASS OF '82

Adams, Edward R.  
Ayer, Winslow B.  
Backer, Clarence A.  
Bigelow, Alanson, Jr.  
Chapman, George F.  
Cheney, Frank, Jr.  
Darrow, Alfred L.  
Dorchester, Ernest D.  
Faunce, George  
French, Dr. Charles A.  
Gooding, Fred M.  
Hall, Francis P.  
Hannaford, Harvey E.  
Herrick, Rufus F.  
Hunt, Richard H.  
Jenkins, Charles D.  
Johnson, C. Berkeley  
Johnson, James W.  
Keyes, John M.  
Munroe, James P.  
Nichols, Edward  
Patch, Oscar L.  
Prentice, Arthur B.  
Ross, Henry F.  
Ross, John H.  
Snow, Walter B.  
Stevens, Miss Alice A.  
Strickland, Frank V.  
Thompson, Edgar B.  
Tuxbury, Miss Helen  
Walker, Arthur W.

## CLASS OF '83

Babcock, William S.  
Binney, Arthur  
Boardman, Mrs. William D.  
Boyden, Dwight F.  
Browning, John F.  
Bryant, George H.  
Capen, George H.  
Chase, Harvey S.  
Drach, Gustave W.  
Eppendorff, John G.  
Foran, George J.  
Gale, Horace B.  
Hutchings, James H.  
Kingsbury, Henry W.  
La Farge, C. Grant  
Lawton, Mark A.  
Mansfield, Harvey M.  
Merryman, William C.  
Sharp, Herbert H.  
Smith, Albert F.  
Smith, George A.  
Stevens, Edward F.  
Tenney, Frank  
Tuttle, Edward L.  
Underwood, George R.  
Upton, King

Walkley, Edwin N.  
Wesson, David

## CLASS OF '84

Appleton, Charles B.  
Bardwell, Prof. Fred L.  
Bartlett, T. Harris  
Bennett, Henry D.  
Boardman, Henry A.  
Bonillas, Ygnacio  
Bridgman, Alfred F.  
Bunce, Walter H.  
Carven, Christopher J.  
Chandler, Barrett L.  
Chapman, Winthrop M.  
Chase, Roscoe L.  
Coburn, Daniel L.  
Cushman, Solomon F.  
Dearborn, Samuel S.  
Doane, Alfred O.  
du Pont, Coleman  
Fitch, Alfred L.  
French, George L. R.  
Furbish, Willard H.  
Gill, Prof. Augustus H.  
Hammett, Hiram G.  
Hanks, Arthur R.  
Hooker, Henry D.  
Horton, Isaac C.  
Ilsley, Samuel M.  
Jarvis, George T.  
Johnson, Frank F.  
Kennedy, Charles S. L.  
Lull, George F.  
Luther, William J.  
Lyle, David A.  
Maynard, Mrs. Amy B.  
Mead, Frederic S.  
Miller, Charles E.  
Morse, Philip S.  
Noble, Orville R.  
Norris, George H.  
Otis, Herbert F.  
Palmer, Miss Mary T.  
Pratt, A. Stuart  
Prescott, Charles O.  
Puffer, William L.  
Purinton, Arthur J.  
Rich, William J.  
Richards, Franklin B.  
Ricketson, Oliver G.  
Robinson, C. Snelling  
Robinson, Theodore W.  
Ryder, J. Peterson  
Sedgwick, Edward V.  
Stuart, Frederick M.  
Townsend, Arthur F.  
Tyler, Mrs. Harry W.  
Tyler, Prof. Harry W.  
Walworth, John P.  
Ward, Nahum  
Whitney, Asa W.  
Whitney, William M.  
Williams, Francis C.

## CLASS OF '85

Allen, Anson W.  
 Baker, David  
 Bartlett, Charles H.  
 Bates, James H. S.  
 Berge, George H.  
 Brown, Charles A.  
 Choate, Parker C.  
 Cone, Albert P.  
 Cutter, Franklin H.  
 Damon, John H.  
 Dewson, Edward H.  
 Doane, Arthur H.  
 Dodge, Louis L.  
 Eddy, William H.  
 Fiske, Redington  
 Fry, Thomas W.  
 Goodrich, Prof. Robert R.  
 Greeley, Morris L.  
 Greene, S. Cuyler  
 Grosvenor, John M. Jr.  
 Harding, John P.  
 Hildreth, Herbert V.  
 Homer, Eleazer B.  
 Hunt, Arthur K.  
 Kimball, Fred M.  
 Kingsbury, Frederick J.  
 Litchfield, Isaac W.  
 Little, Arthur D.  
 Luffkin, Elgood C.  
 Lyman, John T.  
 Lyon, Tracey  
 Martin, Henry  
 Means, James  
 Mears, Henry A.  
 Morss, Everett  
 Mullins, William J., "In  
 memory of"  
 Newell, Prof. Frederick H.  
 Nute, Joseph E.  
 Nye, George H.  
 Osgood, William H.  
 Page, Frank H.  
 Pierce, Andrew G.  
 Pierce, Richard H.  
 Pratt, Herbert G.  
 Rawson, Edward L.  
 Richards, Charles R.  
 Richardson, Robert E.  
 Robertson, Nathaniel G.  
 Sands, Frank E.  
 Schubmehl, Dr. Frank E.  
 Sise, Lyman  
 Steele, George F.  
 Talbot, Prof. Henry P.  
 Trufant, Walter E.  
 Wilder, C. Morris  
 Williams, Henry J.  
 Williams, Sidney  
 Worthington, Erastus

## CLASS OF '86

Aborn, George P.  
 Anthony, Arthur C.

Baer, Mrs. Richard P.  
 Ball, James T.  
 Batcheller, Birney C.  
 Benson, Henry P.  
 Borden, Richard P.  
 Burgess, John K.  
 Campbell, William K.  
 Chadbourn, William H.  
 Chase, Arthur T.  
 Clark, Otis R.  
 Coit, Robert  
 Cutter, Louis F.  
 Dawson, William F.  
 Doe, Charles C.  
 Doolittle, Orrin S.  
 Draper, Jason T.  
 Duff, James C.  
 Farmer, George W.  
 Fogg, Arthur G.  
 Foss, Prof. Fred E.  
 Gamwell, Roland G.  
 Hargitt, Prof. Charles W.  
 Hathaway, D. Lewis K.  
 Holmes, Charles E.  
 Howe, Benjamin M.  
 Ingalls, Walter R.  
 Jones, Theodore  
 Jordan, William F.  
 Killinger, John W.  
 Kimball, Clarence L.  
 Langdon, James G.  
 Locke, Frank L.  
 Low, Wilson H.  
 McKim, Alexander R.  
 Mackintosh, Frederick  
 Maxim, Hiram P.  
 Merriam, Henry P.  
 Miller, Prof. Edward F.  
 Miller, S. Fischer  
 Noble, Howard G.  
 Noble, Theron A.  
 Noyes, Prof. Arthur A.  
 Osgood, Edward G.  
 Pierce, Edward L.  
 Pope, Percival W.  
 Proctor, Thomas F.  
 Putnam, Frederick W.  
 Rice, David  
 Richardson, Charles F.  
 Richardson, Walter P.  
 Robbins, Prof. Arthur G.  
 Russell, Prof. Lucius K.  
 Schmid, Richard G.  
 Shuman, Edwin A.  
 Simpson, James E.  
 Smith, J. Waldo  
 Smith, Sidney F.  
 Southwick, Philip R., "In  
 Memory of"  
 Stewart, Samuel B. Jr.  
 Sutherland, Reynold H.  
 Taylor, William M.  
 Whitney, Fred A.  
 Whitney, Samuel A.

Wilson, Elwood J.  
 Winsor, Paul  
 Woodbury, Charles H.  
 Wooldridge, Norman S.

## CLASS OF '87

Adams, Henry S.  
 Adams, John W.  
 Armington, George A.  
 Attwill, William H.  
 Barbour, Fred F.  
 Bean, Harry P.  
 Blake, William B.  
 Bliss, William S.  
 Brainerd, Henry B.  
 Brainerd, William H.  
 Brett, Franklin  
 Bryant, Henry F.  
 Burgess, Gelett  
 Cameron, Julian A.  
 Carney, Frank D.  
 Carpenter, James E. R.  
 Cole, Winthrop  
 Conant, Henry J.  
 Cooley, Maurice W.  
 Currier, Albert D.  
 Cushing, W. Channing  
 Dauchy, Samuel  
 Day, Miss Sarah L.  
 Douglas, William B.  
 Draper, George O.  
 Elzner, Alfred O.  
 Farwell, Lyman  
 Fish, Walter C.  
 Freeman, J. Eugene  
 Gay, Joseph B.  
 Goss, Edward O.  
 Hathaway, Savory C.  
 Hildreth, William O.  
 Holt, Judge Henry W.  
 Hunt, Jarvis  
 Jones, Edward A.  
 Kellogg, Thomas M.  
 Kendall, Charles B.  
 Kendall, Frederick A.  
 Kimball, Harry W.  
 Kirkham, Guy  
 Kreps, John E.  
 Lane, Benjamin C.  
 Lawrence, Warrington G.  
 Lee, John C.  
 Livermore, William D.  
 Loud, Joseph P.  
 McColl, Archibald  
 Merrill, Frank A.  
 Moody, Walter S.  
 Mosman, Philip A.  
 Mulliken, Dr. Samuel P.  
 Norris, George L.  
 Palmer, Miss Alice W.  
 Park, Walter L.  
 Patterson, Prof. George W.  
 Patterson, William F.  
 Pickels, Robert F.



Powell, William D.  
 Proctor, Charles A.  
 Pullman, Frederic A.  
 Richardson, Herbert A.  
 Ruggles, Horace F.  
 Sargent, William D.  
 Schmidt, Richard E.  
 Schwarz, Franz H.  
 Sears, Willard T.  
 Shepard, Frank E.  
 Shortall, John L.  
 Smith, Harry E.  
 Stearns, John W.  
 Sturges, Solomon  
 Sylvester, George E.  
 Taintor, Giles  
 Tappan, David H. S.  
 Thomas, Edward G.  
 Thomas, William R.  
 Thompson, Walter S.  
 Twombly, Alexander H.  
 Very, Nathaniel T.  
 Whitney, Granger  
 Whitney, Joseph T.  
 Whitney, William A.  
 Wilcox, Herbert A.

## CLASS OF '88

Adams, Frank H.  
 Baldwin, James C. T.  
 Besler, William G.  
 Bigelow, Henry F.  
 Bird, Herbert S.  
 Blair, Donald M.  
 Blake, Henry W.  
 Blanchard, Winslow  
 Blood, William H.  
 Bradlee, Arthur T.  
 Brown, C. Leonard  
 Buttolph, Benjamin G.  
 Capen, Frank I.  
 Carleton, Elbridge S.  
 Chandler, Howland S.  
 Child, Stephen  
 Cole, Fred B.  
 Collins, Bertrand R. T.  
 Conner, Arthur J.  
 Cromwell, Charles H.  
 Dean, Luther  
 Dearborn, William L.  
 Dempsey, George C.  
 Devens, Richard  
 Dodd, Walter S.  
 Eastman, Henry F.  
 Ellis, Fred E.  
 Eppes, Richard  
 Faunce, Charles L.  
 Ferguson, Louis A.  
 Flint, Bertram P.  
 Foque, Theodore A.  
 Fuller, J. Edward  
 Gammans, James A.  
 Gardner, George C.  
 Gould, Edward S.

Hamblet, George W.  
 Handy, James O.  
 Hazen, Allen  
 Heath, George L.  
 Hinds, Stetson G.  
 Hodgkins, Howard G.  
 Holman, George U. G.  
 Holmes, Charles L.  
 Holton, Edward C.  
 Hoppin, Francis L. V.  
 Horn, Henry J.  
 Hyams, Miss Isabel F.  
 Jarecki, Alexander H.  
 Jones, Arthur W.  
 Jordan, Edwin O.  
 Kean, A. Livingston  
 Keough, William T.  
 Kirkpatrick, James L.  
 Laist, Theodore F.  
 Lee, George S.  
 Leonard, William K.  
 Macdonald, Alexander F.  
 May, Ernest S.  
 Mead, Adelbert F.  
 Meade, Frank B.  
 Merrell, Charles G.  
 Moore, Ernest B.  
 Moore, Frank A.  
 Muhlenberg, Frederick H.  
 Neiler, Samuel G.  
 Newell, Joseph P.  
 Newell, Lorenzo B.  
 Nichols, Fred R.  
 Nickerson, Addison D.  
 Parker, Wilson B.  
 Perkins, Dwight H.  
 Plummer, Thomas R., "In  
 Memory of"  
 Quigley, Edward P.  
 Reynolds, Ralph W.  
 Rice, Charles G.  
 Robb, Russell  
 Roberts, Odin  
 Runkle, John C.  
 Savage, Arthur C.  
 Sawyer, Alfred H.  
 Scales, George C.  
 Shattuck, George C.  
 Shaw, Walter K.  
 Sjostrom, Ivar L.  
 Smith, Joseph Cooke  
 Smith, Robert B.  
 Snow, William G.  
 Stetson, Frank O.  
 Stevens, Jesse F.  
 Stone, Charles A.  
 Sully, John M.  
 Sweetland, Ralph  
 Talbot, Prof. Marion  
 Thompson, Sanford E.  
 Trefethen, Charles G.  
 Underwood, Walter H.  
 Webster, Edwin S.  
 Weil, Prof. Charles L.

Williams, Arthur S.  
 Wood, Frederic J.  
 Wright, Minturn T.

## CLASS OF '89

Ashton, Albert C.  
 Banes, Robert C.  
 Bates, Sturgis G.  
 Beach, Edward J.  
 Bixby, Willard G.  
 Blagden, Edward R.  
 Bliss, Zenas W.  
 Borden, Charles N.  
 Bosworth, Welles  
 Bradley, Frederick W.  
 Brainerd, Frederick H.  
 Brewer, Nathaniel Jr.  
 Bridges, Luther W.  
 Browne, Miss S. Alice  
 Chittenden, Alpheus W.  
 Conant, Elbridge R.  
 Crabtree, Prof. Fred  
 Crane, Edward A.  
 Cutter, Roland N.  
 Dame, Frank L.  
 Davis, Arthur L.  
 Dawson, Charles W.  
 Dodge, Charles B.  
 Dow, William H.  
 Dunbar, Kinsley  
 Dunphe, Carroll S.  
 Durfee, Nathan  
 Emery, Howard B.  
 Fiske, J. Parker B.  
 Ford, Lyman A.  
 French, Alfred W.  
 French, Edward V.  
 French, Hollis  
 Gahagan, Walter H.  
 Gleason, Hall  
 Goodwillie, Frank  
 Hall, Frederic D.  
 Hart, Francis R.  
 Hawkins, Paul R.  
 Hobart, Henry M.  
 Hobbs, Franklin W.  
 Hooker, Richard  
 Howard, Henry  
 Hunt, Harry H.  
 Johnson, Lewis E.  
 Kilham, Walter H.  
 Kinsman, Arthur D.  
 Kunhardt, L. Henry  
 Lauder, George B.  
 Laws, Prof. Frank A.  
 Lewis, William W.  
 Lincoln, Louis L.  
 Linzee, John W.  
 Mauran, John L.  
 May, John E.  
 Merrill, William H.  
 Mott, William E.  
 Nash, Frank C.  
 Orrok, George A.

Parker, Herman  
 Pearson, Gardner W.  
 Pierce, Frank L.  
 Pike, Clayton W.  
 Pillsbury, Edwin S.  
 Power, Charles W.  
 Rankin, John H.  
 Ranno, Fred W.  
 Ray, Dr. Victor  
 Rounds, George W.  
 Russell, George F.  
 Sanborn, Frank E.  
 Sauveur, Prof. Albert  
 Shepard, Edward V.  
 Simpson, Charles L.  
 Smythe, Frank A.  
 Spalding, Kaludy  
 Stone, George W.  
 Tamkin, Herman W.  
 Thurber, William B.  
 Truesdell, Arthur E.  
 Underhill, William W.  
 Van Nostrand, Frank B.  
 Wales, George C.  
 Walker, Miss Lucy  
 Warner, Charles H.  
 Whipple, Prof. George C.  
 White, Joseph B.  
 Whiting, Jasper  
 Williston, Arthur L.  
 Willim, William B.  
 Wilson, Benjamin F. Jr.  
 Wood, J. Delano  
 Wuichet, Walter G.

## CLASS OF '90

Alden, Charles H.  
 Aldrich, Willard C.  
 Atwood, Frank W.  
 Ayer, Arthur W.  
 Baker, Joseph B.  
 Baldwin, Frank C.  
 Bartlett, Spaulding  
 Batchelder, John L.  
 Beasom, Charles B.  
 Bennett, Mrs. William B.  
 Bickford, Miss Elizabeth E.  
 Blood, John B.  
 Borden, J. Edgar  
 Boss, Austin D.  
 Bowker, Willard L.  
 Bragg, Prof. Charlotte A.  
 Brown, Albert F.  
 Brownell, Ernest H.  
 Burley, Harry B.  
 Calkins, Prof. Gary N.  
 Carlisle, Morten  
 Carlton, Chester V.  
 Carmalt, Lawrence J.  
 Carney, James A.  
 Churchill, Charles O.  
 Clark, Edward A.  
 Clark, James Jr.  
 Codman, Thomas N.

Coffin, Winthrop  
 Collins, William H.  
 Cook, Walter F.  
 Crane, John G.  
 Creden, William L.  
 Crosby, Francis W.  
 Daniell, Otis  
 Dearborn, John  
 de Lancey, Darragh  
 Delano, Alexander J.  
 DeWolf, John O.  
 Dodge, Frederick H.  
 Eisendrath, Simeon B.  
 Ellis, Walter  
 Emerson, Guy C.  
 Emery, Elwood A.  
 Fenn, William H.  
 Fuller, George W.  
 Gilmore, George L.  
 Goodwin, Prof. Harry M.  
 Greenlaw, Frank M.  
 Hadley, Samuel L.  
 Hale, Prof. George E.  
 Hart, Miss Susan J.  
 Hayden, Charles  
 Hayden, Henry R.  
 Hayes, Frank  
 Hazard, Schuyler  
 Hills, Leonard M.  
 Hodges, Winthrop T.  
 Holmes, Lemuel B.  
 Horton, Sidney E.  
 Howe, Miss Lois L.  
 Hyde, Karl H.  
 Johnson, William H.  
 Joyce, L. Joseph  
 Kendall, Francis H.  
 Kennicott, Harry A.  
 Kern, Henry W.  
 Knight, Rev. Franklin  
 Koch, Charles F.  
 Latta, Louis M.  
 Lenfest, Prof. Bertram A.  
 Le Sueur, Ernest A.  
 McDonald, Frank A.  
 Macgregor, Wallace  
 Magoun, Mrs. Herbert W.  
 Mann, Bertram H.  
 Martin, Waldo A.  
 Metcalf, Frederick  
 Molineux, Miss Mary A.  
 Moody, Frederick C.  
 Murdock, William L.  
 Nason, Charles R.  
 Neave, Charles  
 Nelson, George L.  
 Newton, Edward T.  
 Nims, Norman G.  
 Norris, Almon E.  
 Noyes, Harry L.  
 Noyes, Joseph K.  
 Packard, Frank L.  
 Packard, George A.  
 Paine, John B.

Paris, Mrs. Louis J.  
 Pennell, Henry B.  
 Peyton, William R.  
 Poland, William B.  
 Raymond, Edward B.  
 Rice, Calvin W.  
 Richmond, Knight C.  
 Roberts, Harold B.  
 Robinson, Prof. Edward  
 Rogers, Allen H.  
 Rogers, Miss Minnie H.  
 Rowell, Mrs. Lillian B.  
 Royce, Frederick P.  
 Schieffelin, Schuyler  
 Sears, Francis P.  
 Seeler, Edgar V.  
 Sherman, Charles W.  
 Simpson, Edmund T.  
 Slater, Howard C.  
 Sonnemann, George A.  
 Spaulding, Henry P.  
 Stearns, Arthur B.  
 Stearns, Edward B.  
 Storrow, Samuel  
 Sturges, Benton  
 Swanton, Frederick W.  
 Tilton, Willard C.  
 Towne, John H.  
 Tuttle, Herbert C.  
 Voorhees, Gardner T.  
 Waite, Henry M.  
 Walker, Prof. Elton D.  
 Walker, Robert T.  
 Wason, Leonard C.  
 Weld, Rev. George F.  
 White, Dr. Franklin W.  
 Whitmore, Henry  
 Whitney, Dr. Willis R.  
 Wilson, Arthur R.  
 Woodman, Andrew W.

## CLASS OF '91

Adams, William H.  
 Aiken, Charles W.  
 Alley, Arthur H.  
 Bassett, William H.  
 Bird, Elisha B.  
 Blanchard, Frederick C.  
 Bowen, Stephen  
 Boyd, Stephen B.  
 Boynton, Louis H.  
 Bradlee, Henry G.  
 Bradley, Harry C.  
 Bryant, Miss Dixie L.  
 Bunker, Carl H.  
 Campbell, George A.  
 Capen, Barnard  
 Carpenter, Mrs. Thomas B.  
 Clark, Charles H.  
 Clement, Hugh B.  
 Colburn, Ralph D.  
 Cole, Fred A.  
 Cole, Harrison I.  
 Collins, Reuben B.

Cormier, Harry E.  
 Daggett, Herbert C.  
 Damon, J. Linfield, Jr.  
 Dart, William C.  
 Dill, Howard A.  
 Donn, Edward W. Jr.  
 Douglass, Walter B.  
 Earl, Edward  
 Ensworth, Horace H.  
 Fiske, Henry A.  
 Freedlander, Joseph H.  
 French, Lester G.  
 Fuller, Will S.

Gaenslen, Frederick B.  
 Garrison, Charles  
 Gottlieb, Albert S.  
 Gould, Miss Alice B.  
 Gove, Dr. Anna M.  
 Hamilton, Edgar L.  
 Hammond, Alonzo J.  
 Hammond, Charles F.  
 Hanington, Charles H.  
 Hatch, Arthur E.  
 Henderson, Walter P.  
 Holmes, Francis C.  
 Holmes, George A.  
 Hopton, Walker E.  
 Howard, Frank W.  
 Howland, Arthur  
 Jarecki, Fred C.  
 Jordan, Harry W.  
 Kimball, Herbert S.  
 Knowles, Morris  
 Lawrence, Prof. William H.  
 Leland, William E.  
 Lipman, August  
 McKenna, Alexander G.  
 Manny, Edmund A.  
 Marquand, Philip  
 Mitchell, Robert C.  
 Moore, Frederick C.  
 Moore, F. Clouston  
 Palmer, William I.  
 Pierce, Albert R.  
 Pratt, Nathan R., "In  
 Memory of"  
 Ramsey, Dr. Allan  
 Rice, Arthur W.  
 Richardson, William C.  
 Ricker, Charles W.  
 Roberts, Prof. William J.  
 Rose, Frederick H.  
 Ryder, Morrill S.  
 Shattuck, A. Forrest  
 Smith, Edwin C.  
 Spencer, Robert C. Jr.  
 Spooner, George H.  
 Steel, Warner J.  
 Swan, James  
 Tappan, Ernest S.  
 Tyler, Clifford, M.  
 Vaillant, George W.  
 Vance, Joseph M.  
 Walker, Ambrose

Weed, Henry T.  
 Welch, James J.  
 Westcott, Charles H.  
 Wetherbee, Charles P.  
 Wetherbee, George H. Jr.  
 White, Hartley, L.  
 Whitley, Charles W.  
 Whitney, Clarence E.  
 Wilder, Salmon W.  
 Wilson, Fred A.  
 Wood, C. Hancock  
 Wright, Vernon A.

## CLASS OF '92

Baker, George W.  
 Barton, Mrs. F. O.  
 Bassett, George O.  
 Bigelow, Charles H.  
 Burbank, Philip M.  
 Burrage, Severance  
 Burrough, Horace Jr.  
 Carlson, Harry J.  
 Chase, Charles H.  
 Chase Richard D.  
 Church, Albert K.  
 Chute, William Y.  
 Clark, Miss Clara M.  
 Cody, Lewis P.  
 Cogswell, Charles N.  
 Colby, John M.  
 Coolidge, J. Randolph  
 Dana, Gorham  
 Davis, Carleton E.  
 Davis, Frank I.  
 Dennett, Hartley  
 de Gersdorff, George B.  
 Derr, Prof. Louis  
 Du Bois, Barron P.  
 Dudley, W. Northrop  
 Eldridge, George F.  
 Ely, Sumner B.  
 French, Allen  
 Fuller, Prof. Charles E.  
 Gill, Edward P.  
 Gilmore, Howard  
 Goetzmann, Albert L.  
 Goodell, George H.  
 Goodkind, Leo  
 Gray, William P.  
 Green, William W.  
 Grimes, Charles B.  
 Hall, Edward C., Jr.  
 Hall, John W.  
 Harris, John L.  
 Harvey, Frederic H.  
 Heywood, Albert S.  
 Hilliard, John D.  
 Holland, Charles P.  
 Holman, Mrs. Mary L.  
 Howe, Wallis E.  
 Hutchinson, W. Spencer  
 Ingraham, George H.  
 Johnston, Prof. William A.  
 Kales, William R.  
 Kendall, Mrs. Francis H.  
 Kendall, William R.  
 Koch, Armand D.  
 Lane, William H.  
 Lee, Elisha  
 Lenz, Charles O.  
 Lewis, Daniel C.  
 Linder, John F.  
 Locke, William W.  
 Look, Moses J.  
 Lukes, George H.  
 Lukes, Joseph B.  
 McCaw, Wallace E.  
 Manley, Laurence B.  
 Marsh, Alden P.  
 Mathews, Prof. Albert P.  
 May, George H.  
 Meserve, Frederick H.  
 Metcalf, Leonard  
 Milburn, Charles C.  
 Miller, Herbert S.  
 Morrill, Asa H.  
 Morse, John G.  
 Muhlenberg, Charles H.  
 Newkirk, Walter M.  
 Newman, Andrew P.  
 Newman, Frank E.  
 Norcross, Josiah C.  
 Nutter, Charles L.  
 Ober, Arthur J.  
 \*Packard, Ambrose  
 Park, Prof. Charles F.  
 Parker, C. Brunel  
 Parrish, J. Scott  
 Pettee, Eugene E.  
 Phillips, Henry M.  
 Pierce, Arthur G.  
 Pierce, Arthur W.  
 Potter, Daniel F.  
 Potter, Herbert S.  
 Pough, Mrs. Francis H.  
 Pratt, Dana M.  
 Preston, Horace G.  
 Rhodes, Frederick Leland  
 Richardson, Preston  
 Robertson, Andrew R.  
 Robinson, Dwight P.  
 Rosewater, William M.  
 Rowell, George F.  
 Ruggles, Horace F.  
 Sargent, Albert F.  
 Scales, William E.  
 Schlacks, Henry J.  
 Shepherd, Frank C.  
 Sherman, Le Roy K.  
 Shute, Henry D.  
 Skinner, Theodore H.  
 Snow, Richard B.  
 Stone, Edward N.  
 Sweetser, Ralph H.  
 Sylvester, Edmund 2  
 Tallant, George P.  
 Trowbridge, Walter B.  
 Tucker, Ross F.

Walker, Dr. Francis  
Wallace, Charles F.  
Warner, Murray  
Warren, Joseph A.  
Waterman, Charles C.  
Waterman, Richard  
Weis, Samuel W.  
Wells, Channing McG.  
Wells, Edward C.  
Wendell, Prof. George V.  
Westcott, Frank T.  
Woodfindale, Warren H.  
Yoerg, Frank

## CLASS OF '93

Abbott, Frederic B.  
Ashton, Frank G.  
Baker, Frederic W.  
Balch, Francis du P.  
Barnes, William T.  
Beattie, Roy H.  
Bemis, A. Farwell  
Biscoe, Maurice B.  
Blake, Edmund E.  
Bliss, Miss Clara A.  
Blood, Grosvenor T.  
Boss, C. Royce  
Braman, Samuel N.  
Breed, Stephen A.  
Bremer, S. Parker  
Brittain, John R.  
Brockunier, Samuel H.  
Brown, T. Morris  
Bryant, Ernest C.  
Bumstead, Dale  
Buchanan, Leonard B.  
Buchholz, Charles E.  
Buck, Arthur A.  
Burckhardt, Horatio W.  
Burke, John R.  
Calkins, Leighton  
Carney, Edward B.  
Case, Lawrence W.  
Clapp, Harry L.  
Clapp, John C., Jr.  
Clapp, Wilfred A.  
Codman, John S.  
Connable, Frank L.  
Cook, Charles N.  
Copeland, William R.  
Crosby, William W.  
Dana, George F.  
Darrow, Courtland R.  
Davis, Albert G.  
Dawes, Herbert N.  
Dearborn, George K.  
Dennett, James V.  
Densmore, Edward D.  
Dillon, Frederick N.  
Dodge, Samuel D.  
Dorman, Theodore T.  
Draper, Alfred E.  
Edwards, Ariel B.  
Ellms, Joseph W.

Emery, James A.  
Estey, William  
Fabyan, Francis W.  
Fay, Frederic H.  
Fenner, Burt L.  
Forbes, William S.  
Fowle, Arthur E.  
Garlichs, Charles F.  
Garstang, Charles E.  
Gilson, Howard A.  
Glidden, George B.  
Gorham, Marvine  
Hawley, John C.  
Hight, Francis W.  
Hinckley, J. Fred  
Holmes, Edward J.  
Hooper, George M.  
Hopewell, Charles F.  
Houck, William G.  
Hoyt, Charles H.  
Hunt, Myron H.  
Jackson, Daniel D.  
Jackson, William D.  
Jameson, Arthur H.  
Keith, Simeon C.  
Kendall, Albert L.  
Kenison, Prof. Ervin  
Keyes, Frederic H.  
Knowlton, Willis T.  
Lambert, Wallace C.  
Latey, Harry N.  
Latham, Harry M.  
Leeds, Edmund I.  
Lomb, Adolph  
Lorch, Prof. Emil  
Lord, Frederic W.  
Low, Frederic F.  
Marshall, Albert T.  
Mason, Prof. Elizabeth S.  
Merrill, Frank H.  
Mirick, George L.  
Moody, Arthur M.  
Moore, George  
Morrill, Harley W.  
Morss, Henry A.  
Mott-Smith, Harold M.  
Nichols, Henry W.  
Norris, Walter H.  
Norton, Charles L.  
Page, Edward  
Page, Edward S.  
Page, William B.  
Paine, Cecil E.  
Palmer, Alden R.  
Parce, Joseph Y.  
Patch, Walter W.  
Peabody, William V.  
Peavey, Arthur S.  
Phillips, Harry M.  
\*Phinney, Frank F.  
Pickert, Leo W.  
Randall, Edward B.  
Richardson, Frank D.  
Richmond, Harold A.

Roach, Harry F.  
Rogers, Howard L.  
Rosenheim, Samuel F.  
Sargent, Howard R.  
Shaw, Howard Van D.  
Skinner, Fenwick F.  
Smith, Frederick D.  
Soley, William A.  
Speer, J. Ramsey  
Spofford, Prof. Charles M.  
Stebbins, Elwyn W.  
Stose, George W.  
Stowe, Lovell B.  
Taintor, Charles W.  
Taylor, Charles M.  
Tenney, Winthrop P.  
Thomas, Alfred C.  
Thomas, Percy H.  
Thorndike, Harry H.  
Tripp, Charles A.  
Tuttle, Ruel C.  
Vining, Louis B.  
Wadsworth, Augustus B.  
Waldron, S. Payson  
Walker, Charles R.  
Wallace, Frederick A.  
Wallis, Robert N.  
Washburn, Cadwallader  
Webster, Lawrence J.  
Weeks, Harry E.  
Whiston, William C.  
Whitaker, S. Edgar  
Wilder, Parker H.  
Willey, Miss Nettie M.  
Williams, Frank P.  
Wingate, Edward L.  
Woodbridge, Jonathan E.  
Yorke, George M.

## CLASS OF '94

Abbot, Charles G.  
Abbott, Frederick B.  
Adams, Raleigh B.  
Allen, Miss Annie E.  
Andrews, Edmund L.  
Bailey, Roland  
Baker, Fred C.  
Barstow, George E.  
Bartlett, J. Gardner  
Batcheller, Henry R.  
Batson, Walter V.  
Beach, Charles B.  
Bean, Norwin S.  
Beardsell, George R.  
Bigelow, Frederick S.  
Blake, Samuel H.  
Bonesteel, Mrs. P. Frank  
Bovey, William H.  
Brown, Willard D.  
Bugbee, Lucian W.  
Bullard, Miss Mary B.  
Burrows, William R.  
Chace, Mason S.  
Chaffee, Dudley C.



Cheney, Nathan  
 Claffin, Alan A.  
 Clark, William L.  
 Clarke, Prescott O.  
 Clement, Arthur A.  
 Copeland, Henry F.  
 Crary, Horace A.  
 Curtis, Thomas P.  
 Dana, Leslie  
 Dates, Prof. Henry B.  
 Davis, Leon K.  
 Day, Nathan B.  
 de Lancey, Mrs. Darragh  
 Duckworth, Harry S.  
 Edwards, Henry E.  
 Ellis, John  
 Estey, J. Gray  
 Ferguson, John N.  
 Gaines, Miss Elizabeth V.  
 Gardner, J. Howland  
 Gilkey, R. Waldo  
 Greenleaf, Lewis S.  
 Harding, Harry B.  
 Hastings, Harry P.  
 Haven, Prof. George B.  
 Hazelton, Isaac B.  
 Hewitt, Herbert E.  
 Holden, Frank H.  
 Holder, Jesse M.  
 Hubbard, Charles B.  
 Hubbard, Gorham  
 Hunt, Edward M.  
 Jenckes, Earl S.  
 Jenney, Warren  
 Johnson, Charles H.  
 Jones, Milton F.  
 Keith, Albert G.  
 Kimball, Joseph H.  
 Kimberly, James C.  
 King, William H.  
 Kirk, Robert H.  
 Kittredge, John W.  
 Klipstein, Ernest C.  
 Lacount, Henry O.  
 Lawrence, Charles M.  
 Leiper, George N.  
 Loring, Robert  
 Lovejoy, Frank W.  
 Lowell, Guy  
 McKibben, Prof. Frank P.  
 Mann, Prof. Frederick M.  
 Meade, Charles A.  
 Miller, William R.  
 Moore, Leslie R.  
 Morison, Nathaniel H.  
 Morse, Robert G.  
 Nash, Luther R.  
 Newbegin, Parker C.  
 Newhouse, Henry L.  
 Nisbet, John L.  
 Owen, Prof. George  
 Paessler, Vinton S.  
 Patrick, Arthur L.  
 Peabody, Miss Susan W.

Peet, William C.  
 Phelan, Joseph W.  
 Phillips, Charles A.  
 Piper, Walter E.  
 Pollock, Clarence D.  
 Pratt, Wallace W.  
 Pratt, William H.  
 Prescott, Prof. Samuel C.  
 Price, Raymond B.  
 Proctor, Richard W.  
 Reynolds, Howard S.  
 Reynolds, Robert D.  
 Richards, Daniel W.  
 Richards, Thomas G.  
 Ripley, Henry F.  
 Sawyer, Mrs. Charles W.  
 Sayward, Dr. William H., Jr.  
 Schiertz, Ferdinand A.  
 Scott, Walter O.  
 Sherman, George W.  
 Shurtleff, Arthur A.  
 Southard, Frank M.  
 Spalding, Willard F.  
 Sperry, Austin  
 Stearns, Fred L.  
 Sturgis, Russell  
 Swanton, Henry A.  
 Taber, George A.  
 Taylor, George  
 Tenney, Albert B.  
 Thropp, J. Earliston, Jr.  
 Tidd, Arthur W.  
 Tufts, Leonard  
 Varney, Theodore  
 Waite, Edward B.  
 Warren, Henry E.  
 Watson, Thomas A.  
 Weidinger, Albert E.  
 Westcott, William R.  
 Weston, Robert S.  
 Wheildon, William M.  
 Wood, Kenneth F.  
 Zimmerman, Albert G.

## CLASS OF '95

Adams, Benjamin  
 Alden, Edwin C.  
 Allen, Edward E.  
 Ames, Azel  
 Badger, Ernest F.  
 Ballou, Latimer W.  
 Barrows, Prof. Harold K.  
 Barry, Edmund D.  
 Bartholomew, Miss Ethel  
 Belknap, Francis W.  
 Bigelow, C. Willard  
 Bixby, Arthur G.  
 Bixby, George L.  
 Bliss, Duane L., Jr.  
 Bliss, Walter D.  
 Booth, Thomas B.  
 Bourne, Frank A.  
 Bowen, Miss Kate A.  
 Brackett, Wallace C.

Brawley, Miss Margaret C.  
 Brininstool, Frank M.  
 Brown, Richard B.  
 Burns, F. Highlands  
 Canfield, Arthur L.  
 Carr, Robert W.  
 Cary, Hunsdon  
 Chapman, Dr. E. Morton  
 Chapman, Dr. William L.  
 Child, Oscar C.  
 Claffin, William B.  
 Clapp, Eugene H.  
 Clapp, Gustavus  
 Clapp, Sidney K.  
 Clark, Schuyler S.  
 Coburn, Arthur S.  
 Coddington, Harry P.  
 Conant, Luther, Jr.  
 Cooke, Charles P.  
 Cooke, John W.  
 Crafts, Walter N.  
 Crane, Henry M.  
 Cutter, George A.  
 Davis, Herbert E.  
 Davis, William E., Jr.  
 Dean, Arthur D.  
 Defren, George  
 Dejonge, Alfred L.  
 Denison, Edward F.  
 Donham, Benjamin C.  
 Dorrance, John T.  
 Drake, Albert W.  
 Drisko, Prof. William J.  
 Faxon, Francis E.  
 Fish, Milton L.  
 FitzGerald, Francis J.  
 Fuller, Andrew D.  
 Gay, Charles M.  
 Gilbert, Perley F.  
 Goodyear, Watson E.  
 Grant, Mrs. Henry C.  
 Greenfield, William H.  
 Gregory, John H.  
 Haffenreffer, Rudolph F.  
 Hall, William T.  
 Hannah, Frederick A.  
 Haven, Harry M.  
 Hoisington, Edwin T.  
 Hopkins, James C.  
 Howard, L. Frederic  
 Howe, George E.  
 Hunt, Samuel P.  
 Hurd, Edward L.  
 Huxley, Edward H.  
 Lawrence, Prof. Ralph R.  
 LeBosquet, Maurice  
 Loring, Ernest J.  
 Lothrop, Thomas M.  
 Marcy, Dr. Henry O., Jr.  
 Marmon, Walter C.  
 Marvin, Fred H.  
 Matthes, Gerard H.  
 Miller, Franklin T.  
 Moore, John D.

- Nay, Ira A.  
 Nichols, George A.  
 Owen, Allison  
 Park, Franklin A.  
 Parker, Charles H.  
 Parker, John H.  
 Parker, Winthrop D.  
 Parmelee, Charles L.  
 Patten, William F.  
 Phemister, Walter R.  
 Powers, Walter C.  
 Reed, Walter W.  
 Richards, Frederick L.  
 Rickey, Walter J.  
 Riley, Alton H.  
 Rockwell, George A.  
 Rourke, Louis K.  
 Rust, Harold N.  
 Sadtler, Samuel S.  
 Schmitz, Frank C.  
 Schoentgen, Edward P.  
 Sheridan, Richard B.  
 Sherman, John C.  
 Sias, Frank S. V.  
 Sloan, Alfred P., Jr.  
 Smith, Herbert E.  
 Smith, H. Hilliard  
 Stevens, Walter F.  
 Swift, Robert W.  
 Swift, William E.  
 Swope, Gerard  
 Taylor, Alfred T.  
 Thomas, James W.  
 Thorndike, Sturgis H.  
 Tillinghast, Charles F.  
 Tucker, Edward A.  
 Waite, Loren G.  
 Walworth, Joseph E.  
 Watkins, W. Haskell  
 Weston, David B.  
 Wheeler, Archer E.  
 Wheeler, Ralph N.  
 Whorf, Harry C.  
 Williams, Roger J.  
 Williams, Walter S.  
 Winkley, William H.  
 Winslow, George R.  
 Withington, Philip H.  
 Wray, Charles F.  
 Yoder, Luther K.  
 Yoerg, Henry
- Barto, Henry D.  
 Batchelder, Charles E.  
 Bates, Daniel M.  
 Beaman, David W.  
 Bean, Miss Elizabeth W.  
 Boardman, Prof. Harold S.  
 Brackett, E. Raymond  
 Bragg, Prof. Edward M.  
 Brooks, John F.  
 Brown, Harry W.  
 Bucher, Russell S.  
 Burgess, George K.  
 Burton, Mrs. Paul G.  
 Callan, John G.  
 Campbell, Justin W.  
 Cannon, Lewis T.  
 Chenery, Prof. Winthrop H.  
 Clarke, Robert C.  
 Clary, Joseph W.  
 Cluett, Albert E.  
 Colburn, George C.  
 Colman, Willard H.  
 Conant, Francis M.  
 Cook, Frank R.  
 Coolidge, Dr. William D.  
 Coolidge, Winthrop  
 Coonley, Avery  
 Cotton, Leonard M.  
 Crane, Stephen D.  
 Crocker, Calvin I.  
 Crosby, Ralph W.  
 Culver, Clarence C.  
 Cummings, Charles K.  
 Damon, Frederick W.  
 Daniels, Miss Ada E.  
 Daniels, Nathan H.  
 Dann, Miss Mary E.  
 Davis, Charles W.  
 Davis, Robert A.  
 De Long, Harold W.  
 Deming, W. E. Spencer  
 Dodd, Mrs. Walter S.  
 Dorrance, William T.  
 Dove, John  
 Driscoll, James M.  
 Driscoll, Joseph  
 Drum, Alphonsus L.  
 Dyer, Harry W.  
 Eaton, James S.  
 Elliot, Richard O.  
 Emerson, Dr. L. Eugene  
 Eynon, John S.  
 Faville, William B.  
 Field, Frederick E.  
 Field, William E.  
 Fisher, Prof. Elizabeth F.  
 Fisk, Harry G.  
 Fitts, Miss Ada M.  
 Flood, Robert D.  
 Foss, Charles E.  
 Freedman, Louis A.  
 Fuller, Frederic W.  
 Fuller, Myron L.  
 Fuller, Robert L.
- Gardner, Henry  
 Gates, Miss Hattie L.  
 Gilman, Dr. Harry S.  
 Goodhue, Leonard H.  
 Grush, Henry G.  
 Guptill, Frank E.  
 Hall, Gaylord C.  
 Hallaran, John S.  
 Hamlen, Miss Elizabeth P.  
 Hapgood, Charles W.  
 Hardy, Robert S.  
 Harkness, George E.  
 Hartwell, Hiram B.  
 Haseltine, William E.  
 Haste, James H.  
 Hatch, George P.  
 Hatfield, Albert D.  
 Hawley, Harvey F.  
 Hayward, Prof. Harrison W.  
 Hedge, Henry R.  
 Hedge, William R.  
 Hellman, Max  
 Henry, Ralph C.  
 Hersey, Francis C., Jr.  
 Hewins, George S.  
 Hodges, Arthur W.  
 Holland, Henry O.  
 Holt, William A.  
 Howard, Perry B.  
 Howe, Prof. James L.  
 Howe, J. Milton  
 Howland, Stanley  
 Hubbard, Frank J.  
 Huey, William Q.  
 Hultman, Eugene C.  
 Hunt, Samuel P.  
 Hurd, Benjamin  
 Hyde, Charles G.  
 Ingalls, Charles H.  
 Ingell, Homer P.  
 Jacobs, Eldridge C.  
 James, Prof. Walter H.  
 Jameson, Minor S.  
 Jones, Howard K.  
 Jones, Theodore I.  
 Kite, Miss Rebecca  
 Knight, Joseph H.  
 Lamborn, Leebert L.  
 Lawrence, Charles E.  
 Laws, Eugene H.  
 Lee, Mrs. F. W.  
 Leighton, Marshall O.  
 Litchfield, Paul W.  
 Locke, Prof. Charles E.  
 Lonngren, John E.  
 Lord, John A.  
 Lythgoe, Herman C.  
 McCann, Frank G.  
 MacLachlan, Andrew D.  
 Mansfield, Edward S.  
 \*Manahan, John H.  
 Marble, Louis C.  
 Mason, William C.  
 Mattocks, William S.
- CLASS OF '96  
 Addison, Mrs. Daniel D.  
 Allen, Mark W.  
 Ames, Butler  
 Anderson, William P.  
 Ashley, Frederic M.  
 Ashton, John  
 Bakenhus, Ruben E.  
 Baldwin, E. Arthur  
 Baldwin, Henry S.  
 Barbour, William E.  
 Barker, Edgar H.

Mead, Ernest E.  
 Melluish, James G.  
 Merrell, Irving S.  
 Merryweather, George E.  
 Moat, Charles P.  
 Moore, Milton E.  
 Morrill, Rev. Guy L.  
 Morris, Charles  
 Morse, Louis S.  
 Nagle, Dr. James W.  
 Nevin, Charles K. B.  
 Newell, Herbert D.  
 Newhall, Charles S.  
 Norris, Miss Grace A.  
 Northup, Edwin S.  
 Norton, Mrs. Lewis Mills  
 Partridge, Rev. Welles M.  
 Paul, Charles H.  
 Pauley, Karl A.  
 Peabody, Francis R.  
 Perley, Clarence W.  
 Pierce, Myron E.  
 Pingree, Edwin D.  
 Poppenhusen, Herman A.  
 Priest, Mortimer C.  
 Rawson, Harry D.  
 Richardson, Daniel A.  
 Rockwell, Dr. J. Arnold  
 Root, William L.  
 Rundlet, Frederick T.  
 Russell, A. Le Baron  
 Rutherford, Norman F.  
 Sager, Lawrence K.  
 Sanderson, Nathan H.  
 Savage, Ariel D.  
 Sears, Henry K.  
 Sears, Mortimer A.  
 Sherman, Henry A.  
 Smetters, Samuel T.  
 Smith, F. Haskell  
 Smith, Herbert E.  
 Smith, Howard E.  
 Smyser, Albert E.  
 Spahr, Albert H.  
 Stamp, Charles E.  
 Starbuck, George F.  
 Stearns, Walter M.  
 Stickney, Joseph W.  
 Stone, Charles H.  
 Stone, Miss Esther  
 Stoughton, Bradley  
 Strader, Jacob, Jr.  
 Stratton, George E.  
 Sturm, Meyer J.  
 Sturtevant, Joseph L.  
 Sumner, George W.  
 Swan, Miss Almira F.  
 Taft, Harrison S.  
 Tappan, Lewis H.  
 Thomas, W. Harrison  
 Thompson, Albert W.  
 Thomson, Miss Lucy D.  
 Tilley, John  
 Tower, Clement B., Jr.

Tozier, Henry H.  
 Tucker, Charles W.  
 Tuttle, Morton C.  
 Tyler, Lucius S.  
 Underhill, Arthur P.  
 Wall, William G.  
 Wason, Robert S.  
 Wayne, J. Lloyd, 3d  
 Wells, Albert J.  
 Wentworth, Charles A.  
 Whitney, Lambert N.  
 Willis, John H.  
 Wise, Samuel F.  
 Wood, Miss Elvira  
 Wood, Willett A.  
 Woodsum, Arthur F.  
 Woodwell, Julian E.  
 Young, Conrad H.

## CLASS OF '97

Allen, William H., Jr.  
 Atwood, Thomas C.  
 Bacon, John F.  
 Baker, James T.  
 Ballou, Henry W.  
 Bancroft, Joseph  
 Bancroft, Wilfred  
 Baumann, Edgar B.  
 Beers, Herbert P.  
 Binley, William, Jr.  
 Bliss, Edwin P.  
 Bliss, George H.  
 Blood, Percy E.  
 Boyd, John S.  
 Bradlee, Charles W.  
 Bragg, Franklin E.  
 Brainerd, Edwin A.  
 Bramhall, Charles T.  
 Breed, Prof. Charles B.  
 Brown, Warren D.  
 Buck, Walter F.  
 Buff, Louis F.  
 Burdick, Howard H.  
 Burrill, Nathan C.  
 Bush, Walter M.  
 Carty, John E.  
 Collins, John A., Jr.  
 Cowles, Luzerne S.  
 Crocker, Allen S.  
 Crocker, Lincoln  
 Currier, Charles R.  
 Davis, David  
 Deavitt, Henry M.  
 Doliber, Franklin W.  
 Dougherty, Proctor L.  
 du Pont, Irénée  
 Eames, Charles H.  
 Eaton, William W.  
 Edmands, Frederick L.  
 Estabrook, Herbert W.  
 Ewen, Malcolm F.  
 Ewing, Charles  
 Ewing, William C.  
 Ewing, Mrs. William C.  
 Feeley, Frank G.  
 Field, David D.  
 Fort, Jerome H.  
 Foster, Miss Mary L.  
 Fox, William H.  
 Gaillard, Lawrence L.  
 Gerber, Elmer L.  
 Gilmore, Jonathan M.  
 Gleason, Walter A.  
 Goodspeed, George M.  
 Gordon, Miss Elizabeth F.  
 Gowen, Sumner  
 Gray, Owen H.  
 Grover, William A.  
 Hamilton, Alfred S.  
 Haskins, Prof. Charles N.  
 Hatch, Israel  
 Hawkins, Edgar M.  
 Hayward, Nathan  
 Heard, Henry R.  
 Hemmings, Frederick J.  
 Hering, Oswald C.  
 Hitchcock, Frederick S.  
 Hoyt, Henry F.  
 Hooker, Stanley A.  
 Hopkins, Arthur T.  
 Hosford, Roger F.  
 Hosmer, Prof. George L.  
 Howard, Ethan H.  
 Howard, Sheldon L.  
 Howland, John H.  
 Hubbard, Chester D.  
 Hubbard, Jesse B.  
 Humphreys, Walter  
 Hunnewell, Frederick A.  
 Ilsley, John P.  
 Jackson, Allen W.  
 Jackson, Henry D.  
 Jennings, Arthur L.  
 Keisker, Frank H.  
 Kent, William A.  
 Kimberly, Albert E.  
 Knight, George H.  
 Lane, George M.  
 Lawler, George S.  
 Learned, Ernest F.  
 Loomis, Henry M.  
 Lunt, Robert S.  
 McCarthy, Francis V.  
 McCarthy, George H.  
 McElwain, James F.  
 Macomber, John R.  
 Maguire, Thomas F. J.  
 Mansfield, Frank E.  
 Manson, Prof. Edmund S., Jr.  
 Mason, Earl P.  
 Mathews, Mrs. Albert P.  
 Moore, Hugh K.  
 Moran, George A.  
 Motch, Edward R.  
 Mulhall, Harold T.  
 Nelson, Alexander H.  
 Noble, Howard A.  
 Norris, Dr. Albert P.

Olin, Edwin R.  
 Osgood, Farley  
 Pope, Charles H., Jr.  
 Potter, William C.  
 Preston, Frank H.  
 Prichard, Edward H.  
 Pugh, Achilles H., Jr.  
 Records, Francis B., Jr.  
 Reed, W. Edgar  
 Rhodes, William S.  
 Richards, Louis J.  
 Robinson, Elmer H.  
 Royce, James C.  
 Russell, Walter B.  
 Sawin, Luther R.  
 Sawtelle, Harry F.  
 Sawtelle, William O.  
 Sawyer, James C.  
 Schuttler, Carl  
 Sellew, William H.  
 Sharer, Carl W.  
 Shepard, Francis H.  
 Shuman, Jesse W.  
 Smith, Harrison W.  
 Smith, James W.  
 Soley, John C.  
 Spring, Russell C.  
 Starbuck, G. Franklin  
 Steiner, Klaus J.  
 Stiles, Prof. Percy G.  
 Strong, Edward F.  
 Sumner, Edward A.  
 Swan, Rodolphus A.  
 Taylor, John B.  
 Taylor, Miss Sarah M.  
 Tewksbury, J. Winthrop  
 Tinkham, Edgar L.  
 Tone, Jay E.  
 Tripp, Benjamin C.  
 Trumbull, Morris K.  
 Vinal, Ralph S.  
 Wadleigh, George R.  
 Wells, Mrs. Joseph A.  
 Weymouth, Thomas R.  
 Wood, William R.  
 Woodyatt, Ernest  
 Worcester, Henry E.

## CLASS OF '98

Adams, George W.  
 Alland, Leon  
 Allyn, Robert S.  
 Anthony, George R.  
 Arnold, Lyman  
 Ayers, Milan V.  
 Babson, Roger W.  
 Barker, Elliott R.  
 Barrows, Miss Anna  
 Belcher, Henry C.  
 Blackmer, William D.  
 Blanchard, Prof. Arthur A.  
 Bleecker, John S.  
 Bodwell, Howard L.  
 Brewer Arthur F.

Brewster, William  
 Brown, Dickson Q.  
 Butcher, William L.  
 Butterworth, Elwell R.  
 Byam, Le Roy H.  
 Chace, Ira M., Jr.  
 Chapin, Edward S.  
 Churchill, Durand  
 Coombs, Frank E.  
 Cornell, Worthington  
 Cottle, George T.  
 Craven, George W.  
 Curtis, Everett N.  
 Cutter, Fred B.  
 Dakin, George W.  
 Dana, William S. B.  
 Dater, Philip H.  
 Davis, Alvan L.  
 Davis, Huntly W.  
 Davison, George R.  
 Dawes, Fred B.  
 De Golyer, Robert S.  
 Delano, Maurice F.  
 Drake, Chester F.  
 Edgerly, Daniel W.  
 Emery, Earle C.  
 Everett, Julian F.  
 Fenner, David C.  
 Fisher, Howell  
 Fiske, George I.  
 Fleisher, Simon  
 Franklin, Arthur I.  
 Gardner, Lester D.  
 Gary, Dr. Clara E.  
 Gilbert, Frederick C.  
 Godbold, Charles H.  
 Godfrey, Dr. Hollis  
 Godley, George McM.  
 Goldsmith, Clarence  
 Goodrich, Arthur L.  
 Haskell, George O.  
 Heathman, Frank B.  
 Hewins, Lyman F.  
 High, Carl S.  
 House, John H., Jr.  
 Howard, Arthur F.  
 Humphrey, Seth K.  
 Huntington, George D.  
 Huse, Arthur W.  
 Jacoby, Areli H.  
 Johnson, Bertrand H.  
 Jones, Frederic A.  
 Jones, Frederick H.  
 Jones, Harold W.  
 Jones, Samuel F.  
 Kaufman, Irvin H.  
 Keene, Arthur S.  
 Kellogg, Franklin M.  
 Kendall, Robert E.  
 King, Edwin R.  
 Lacy, Robert  
 Lambert, Dr. John H.  
 Lambert, Mrs. John H.  
 Lane, Edward P.

Lansingh, Van Rensselaer  
 Lee, Walter H.  
 Lippincott, Jesse T.  
 Lombard, Percival H.  
 Lord, Herbert I.  
 MacFarlane, David H.  
 McIntyre, James S.  
 McKell, William  
 Marshall, William A.  
 Mathews, George E.  
 Milliken, Edward N.  
 Mommers, Richard  
 Morrill, Edward F.  
 Myers, David J.  
 Nelson, Willard B.  
 Newbury, George K.  
 Newhall, Henry B., Jr.  
 Nickerson, Clarendon  
 Nolte, Julius E.  
 Packard, A. Appleton  
 Page, Walter  
 Peavey, Leroy D.  
 Peckham, Frank I.  
 Pen Dell, Charles W.  
 Perley, William M.  
 Perry, Frank B.  
 Philbrick, Shirley S.  
 Porter, Arthur F.  
 \*Pratt, R. Winthrop  
 Priest, Benson B.  
 Putnam, William E.  
 Peckham, Edward B.  
 Richardson, Dr. Frank L.  
 Richmond, Henry P.  
 Riley, Joseph C.  
 Roberts, Thomas M.  
 Robinson, John T.  
 Robinson, William A. Jr.  
 Rumery, Ralph R.  
 Russ, Ernest F.  
 Russell, Benjamin F. W.  
 Rutherford, Eugene W.  
 Sargent, Homer E.  
 Scott, Henry F.  
 Sears, Joseph H.  
 Seidensticker, Lewis J.  
 Staples, William D.  
 Stevens, Gorham P.  
 Streng, Lewis S.  
 Strickland, William R.  
 Sturtevant, Edward  
 Swasey, A. Loring  
 Tallant, Dr. Alice W.  
 Tallmadge, Thomas E.  
 Taylor, Mark E.  
 Thompson, Prof. M. deKay  
 Tietig, Rudolph  
 Treat, George W.  
 Treat, Miss N. Florence  
 Tucker, Atherton H.  
 Twombly, Fred H.  
 Underwood, W. Lyman  
 Wadsworth, George R.  
 Wallace, Robert B.



Ward, Ward W.  
Waterson, Karl W.  
Watkins, Norman  
Weimer, Edgar A.  
Wesson, Paul B.  
Wilder, Clifton W.  
Willis, Raymond S.  
Wing, Charles F., Jr.  
Wing, David L.  
Winslow, Prof. C-E. A.  
Wood, Winthrop B.  
Wright, Dr. George H.  
Zimmerman, Walter G.

## CLASS OF '99

Abbott, Lewis B.  
Adams, Herbert H.  
Adams, Walter O.  
Addicks, Lawrence  
Allen, J. Walter  
Barry, C. Gardner  
Beder, Harold W.  
Bennett, Raymond F.  
Blackmer, Arthur E.  
Blake, F. Minot  
Bonns, Dr. Walter W.  
Brown, Arthur H.  
Brown, Carroll W.  
Brown, G. Winslow  
Burr, Miss Alice M.  
Butler, Walter H.  
Caldwell, Frederick W.  
Cannon, Sylvester Q.  
Cannon, Willard T.  
Clapp, Frederick O.  
Clapp, James F.  
Cluff, Clarence B.  
Congdon, John E.  
Corse, William M.  
Courtis, Stuart A.  
Cushing, Harvey M.  
Cutler, Miss Jane R.  
Dike, George P.  
Dryer, James C.  
Eaton, Henry C.  
Ellery, James B.  
Emerson, George D.  
Ferguson, John B.  
Field, Leonard H., Jr.  
Flynn, William B.  
Foote, Arthur B.  
Fowle, Frank F.  
Gilpin, Russell  
Graves, Harold S.  
Graves, Miss Henrietta L.  
Gray, David E.  
Greer, Herbert C.  
Grover, Prof. Frederick W.  
Gurney, Ewing R.  
Hammond, E. Hosmer  
Hancock, Mrs. James H.  
Hawkins, Lawrence A.  
Hayden, David H.  
Henrich, Edward G.

Hermanns, Prof. Frank E.  
Hern, Joseph L.  
Hewitt, Edwin H.  
Hewitt, Harwood  
Hinckley, Benjamin S.  
Hinckley, Everett H.  
Hinman, Walter  
Hogue, Chester J.  
Holliday, Alexander R.  
Hyde, W. Francis  
James, H. Philip  
Jones, Bassett  
Kingman, William A.  
Kinsman, William A.  
Kruse, Conrad F.  
Lacaff, Florian L.  
Lewis, Joseph E.  
Loomis, Allen  
Loud, Ralph W.  
Mandeville, William H.  
Matheson, W. Scott  
Mork, Harry S.  
Morse, Benjamin E.  
Morse, Harry L.  
Motch, Stanley  
Newell, Lester A.  
Newell, William S.  
O'Hearn, Timothy C.  
Packard, Edwin A.  
Parker, William E.  
Pennock, George A.  
Phalen, William C.  
Pierce, Reginald K.  
Pinkham, Ralph H.  
Priest, George H.  
Real y Gaillard, Juan  
Renshaw, Clarence  
Richmond, Gerald M.  
Riddle, Herbert H.  
Riddle, Lewis W.  
Riker, George H.  
Robertson, Samuel B.  
Robinson, Thomas P.  
Sawyer, Haven  
Sawyer, H. Russell  
Seavey, Norman E.  
Sheak, Edwin R.  
Sites, Frederick R.  
Skinner, Hervey J.  
Smith, Charles A.  
Smithwick, Harold  
Starr, Herbert H.  
Stearns, Frederic B.  
Stebbins, Roland W.  
Stetson, James A.  
Stockton, Philip  
Street, Gerald B.  
Sutermeister, Edwin  
Sutliff, Walter H.  
Swift, Frank R.  
Tandy, Wilbert C.  
Tilton, Mrs. Mary A.  
Todd, Thomas, Jr.  
Townsend, George R.

Tufts, John L.  
Turner, Lawrie H.  
Vogt, Oscar G.  
Walker, Etheredge  
Watkins, Frederick A.  
Watrous, Charles A.  
Wells, Walter W.  
Werner, Frank A.  
White, Harry K.  
White, William  
Witherell, Percy W.

## CLASS OF '00

Abeel, David G.  
Allen, Elbert G.  
Allen, William R., Jr.  
Atwood, George D.  
Bacon, Charles J.  
Badlam, Stephen  
Balcom, R. Wilfred  
Baldwin, Charles E.  
Barker, James E.  
Barney, Morgan  
Batcheller, James H.  
Blair, Robert S.  
Bowditch, Ingersoll  
Brigham, Theodore W.  
Brooks, Miles E.  
Brown, Clarence C.  
Brown, John  
Brown, Dr. John W.  
Buffum, Frederick D.  
Bugbee, Prof. Edward E.  
Burns, James D., Jr.  
Burroughs, Karl  
Buys, Arthur F.  
Chaffee, Walter C.  
Chase, Aurin M.  
Chase, Frank D.  
Christensen, William  
Clary, Robert H.  
Clausen, Rudolph J.  
Clow, Percival  
Collier, William R.  
Conant, John B.  
Corliss, Cyrus  
Cutting, George W., Jr.  
Davis, Edward H.  
Dean, Walter C.  
Draper, Joseph P.  
Durgin, Miss Clara I.  
Emery, George W.  
Emery, Lewis  
Everett, Frederic E.  
Fitch, Stanley G. H.  
French, Philip R.  
Frink, Gerald  
Gibbs, Rev. George C.  
Godfrey, Lucius W.  
Goodridge, Frederic S.  
Hall, Stephen M.  
Hamilton, Arthur L.  
Hamlin, Ralph  
Harps, Harry M.

Haselton, Barton  
 Hearne, William L.  
 Heckman, James C.  
 Hinman, Dean  
 Holbrook, George M.  
 Hopeman, Bertram C.  
 Howe, Herbert H.  
 Hubbard, Prof. Henry V.  
 Hurd, William R.  
 Hussey, James W.  
 Ingalls, Fred D. B.  
 Jennings, Levi B.  
 Johnson, Benjamin R.  
 Johnson, Daniel S.  
 Jouett, Henry D.  
 Kattelle, Walter R.  
 Keay, Prof. Herbert O.  
 Keith, Leigh S.  
 Kendall, Arthur I.  
 Larrabee, John H.  
 Leach, George H.  
 Leach, Robert H.  
 Leary, Charles A.  
 Leonard, Clifford M.  
 Lewis, Hortense W.  
 Little, J. Lovell  
 McMaster, Miss Jennie K.  
 Macpherson, Herbert A.  
 Maguire, Joseph T.  
 Manley, Sumner M.  
 Maxfield, Daniel E.  
 Mead, George H.  
 Melcher, Arthur C.  
 Merrick, Charles V.  
 Merrick, Frederic I.  
 Merrill, Albert S.  
 Morgan, Harold L.  
 Neall, Newitt J.  
 Newhall, Charles A.  
 Oliver, Leslie A.  
 Osgood, Harry E.  
 Oxnard, Horace W.  
 Patch, Prof. James A.  
 Penard, Thomas E.  
 Perry, Thomas D.  
 Pickard, Greenleaf W.  
 Plummer, Howard C.  
 Porter, John L.  
 Price, Paul L.  
 Rapp, Walter L.  
 Reardon, T. Frederick E.  
 Richardson, Chester A.  
 Riley, Frank M.  
 Ripley, Philip F.  
 Roberts, Robert P.  
 Russell, Prof. George E.  
 Sanders, Warren W.  
 Schneller, George O.  
 Seaver, Kenneth  
 Shumaker, Louis W.  
 Silverman, Mortimer  
 Simpson, Robert C.  
 Smith, Charles E.  
 Smith, Prof. Lawrence S.

Southworth, Frederic W.  
 Sperry, Marcy L.  
 Sprague, James P.  
 Stannard, Mrs. Margaret J.  
 Stearns, Herbert R.  
 Stevens, W. Leonard  
 Stone, Willard W.  
 Stratton, Charles H.  
 Suhr, Carl F.  
 Thayer, Harry M.  
 Thorpe, Mrs. Lewis S.  
 True, Percival E.  
 Tuck, Theodore C.  
 Tucker, Fred I.  
 Tudbury, Warren C.  
 Tweedy, George A.  
 Vogel, Emil F.  
 Walker, Frank R.  
 Walker, Harry L.  
 Walworth, Arthur C., Jr.  
 Weeden, Walter L.  
 Worden, Edwin S.  
 Ziegler, Percy R.

## CLASS OF '01

Albiston, Clayton  
 Arsem, William C.  
 Backus, Le Roy M.  
 Bailey, Robert W.  
 Baker, Philip S.  
 Bass, Prof. Frederic H.  
 Beckwith, Edward P.  
 Belcher, Edward B.  
 Bickford, Warren I.  
 Bittinger, Charles  
 Blauvelt, William G.  
 Boyd, Frederic R. C.  
 Boyle, John, Jr.  
 Brickley, Dr. William J.  
 Briggs, Rev. John P.  
 Brigham, Edmond F.  
 Brownell, John R.  
 Brush, Matthew C.  
 Butler, Lawrence S.  
 Buxton, Philip L.  
 Cady, Francis E.  
 Callahan, Edward H.  
 Catlin, Joseph P.  
 Chalmers, Harry B.  
 Chambers, Henry W.  
 Chandler, Howard T.  
 Chandler, Leonard D.  
 Chapman, Warren G.  
 Church, Prof. Edwin F., Jr.  
 Clapp, Frederick G.  
 Coburn, Charles B.  
 Colby, Frank A.  
 Cowing, George A.  
 Cross, Frederick C.  
 Crowell, Louis A.  
 Culp, Charles M.  
 Danforth, Charles W.  
 Danforth, N. Loring  
 Dart, Albert C.  
 Dart, Harry E.  
 Davidson, W. Fred  
 Davis, Arthur C.  
 De Berard, Wilford W.  
 Dennison, Charles H.  
 Derby, Robert M.  
 Dorsey, Farnum F.  
 Dow, Richard E.  
 Dow, Willard W.  
 du Pont, Lammot  
 Emerson, Frank N.  
 Estabrook, Mansfield  
 Farnham, William E.  
 Fleming, Edward P.  
 Flint, Charles K.  
 Foster, Mortimer B.  
 Gallup, Miss Anna B.  
 Gilson, Henry R.  
 Glover, Russell H.  
 Grant, Harry L.  
 Green, Erik H.  
 Green, Frank W.  
 Hall, George D.  
 Hamilton, James M.  
 Haynes, Heber N.  
 Higgins, Albert W.  
 Hildreth, Horace E.  
 Hobbs, Miss Edith M.  
 Hogle, Milton W.  
 Holford, William G.  
 Holmes, Valdemar F.  
 Hyde, Austin T.  
 Isham, Alonzo K.  
 Jewett, Arthur C.  
 Johnson, Horace  
 Kelley, Will G.  
 Kennedy, Herbert H.  
 Koch, Harry G.  
 Kohr, Donald A.  
 Lacy, Volney E.  
 Lane, William T.  
 Lange, Theodore F.  
 Lawrence, Ellis F.  
 Laws, J. Bradford "In  
 Memory of"  
 McDaniel, Allen B.  
 Macdonald, Harry P.  
 McGann, John F.  
 Macintire, Benjamin G.  
 MacLeod, Miss Grace  
 Marcus, Henry C.  
 Marsh, George E.  
 Martin, Walter I.  
 Miller, Lewis A.  
 Miller, Stuart B.  
 Mitchell, George L.  
 Montgomery, Robert J.  
 Moore, Philip W.  
 Morris, Henry C.  
 Morris, John F.  
 Nims, Lester A. "In  
 Memory of"  
 Ober, Julius E.  
 Ordway, D. Leighton

Parrock, Harry P.  
 Patch, Nathaniel K. B.  
 Pearce, Langdon  
 Pike, Dr. Jay N.  
 Plumb, Ralph  
 Potter, Philip A.  
 Pough, Francis H.  
 Puckey, Francis W.  
 Putnam, James R.  
 Rash, Frank D.  
 Robinson, Ralph C.  
 Rowe, Prof. Allan W.  
 Sayward, William J.  
 Schlesinger, Barthold E.  
 Scott, Walter  
 Sears, Stanley C.  
 Seaver, Edward, Jr.  
 Skene, Norman L.  
 Smith, Frederick W.  
 Stearns, Ralph H.  
 Stone, Solon J.  
 Sulzer, Albert F.  
 Sweetser, Prof. William J.  
 Thatcher, Edward G.  
 Trenholme, Arthur K.  
 Tufts, Charles G.  
 Walker, Frank B.  
 Webster, Fred B.  
 Weil, Asher L.  
 Wight, Roger W.  
 Wildes, Waldo G.  
 Williams, Robert L.  
 Wonsen, Samuel L.  
 Wood, Howard I.  
 Wood, Leonard P.

## CLASS OF '02

Allen, Carlton B.  
 Allen, Clarence M.  
 Allyn, Alfred W.  
 Alsberg, Julius  
 Ames, Henry A.  
 Annett, Cecil B.  
 Appleton, Allen L.  
 Avery, Francis D.  
 Baetjer, Howard  
 Ballard, Joseph W.  
 Bartberger, Edward W.  
 Bates, Miss Sarah L.  
 Beckler, Miss Edith A.  
 Belcher, Donald M.  
 Blanchard, Harold  
 Boardman, Charles  
 Borden, Norman E.  
 Bosworth, Harold O.  
 Brainerd, E. Le Roy  
 Brewer, C. Duncan  
 Bright, George  
 Brodie, Matthew  
 Burr, Charles H.  
 Canby, Harry B.  
 Cates, Louis S.  
 Chalifoux, Paul E.  
 Chapman, Harlen M.

Childs, Arthur R.  
 Collier, Arthur L.  
 Comins, Waldo H.  
 Crowell, Allan W.  
 Crowell, William D.  
 Currey, Harold Y.  
 Curtiss, John L.  
 Cutter, Edward H.  
 Dacy, Miss Alice E.  
 Desloge, Firmin V.  
 Durgin, William A.  
 Eagar, George T.  
 Eager, Frank J.  
 Eastwood, Prof. Everett O.  
 Edwards, Robert S.  
 Everett, Harold A.  
 Farmer, Walter H.  
 Finneran, Thomas A.  
 Fitch, Walter S.  
 Fitzgerald, John M.  
 Foote, Thomas W.  
 Franklin, Duncan R.  
 French, George H.  
 Fruit, John C.  
 Galaher, Francis B.  
 Gannett, Farley  
 Gardner, Archibald  
 Gardner, Charles F.  
 Gates, Thayer P.  
 Katzenmeier, Alfred R. C.  
 Geromanos, Hercules W.  
 Gorfinkel, Emanuel  
 Grant, Kenneth C.  
 Greeley, William R.  
 Hamblet, Abel M.  
 Hammond, Lester C.  
 Hansen, August E.  
 Haskell, Albert A.  
 Hathaway, Herbert M.  
 Hervey, Elmer M.  
 Hill, Miss Beulah C.  
 Hollis, Charles B.  
 Hooker, Henry K.  
 Hooker, Paul  
 Hovey, Chandler  
 Howe, James C.  
 Hunt, Howard N.  
 Hunter, Frederick H.  
 Hutchinson, John A.  
 Ireland, James D.  
 Jackson, Arthur A.  
 Kellogg, Charles W.  
 Kimball, Edwin E.  
 Kingsbury, Noah J.  
 Krueger, Mrs. C. R.  
 Lane, Frank G.  
 Larrabee, Harold D.  
 Lawson, Charles S.  
 Lewis, W. Remsen  
 Lind, Samuel C.  
 Litchman, Harold B.  
 Lombard, Albert E.  
 Lowe, Russell B.  
 McDonnell, Thomas F.  
 McKechnie, Benjamin E.  
 MacNaughton, Ernest B.  
 Madero, Emilio  
 Mahar, James J.  
 Marvin, John R.  
 Mathesius, Frederick, Jr.  
 Matthies, William H.  
 May, Herbert S.  
 Mayo, Raymond J.  
 Mendenhall, Bayard W.  
 Messinger, Dr. Harry C.  
 Millar, Leslie W.  
 Miller, Theodore G.  
 Mitchell, Frank K.  
 Mixter, Dr. Charles G.  
 Mixter, Dr. William J.  
 Montgomery, Frank P.  
 Moore, Lewis E.  
 More, Arthur S.  
 Morse, Miss Margaret F.  
 Morse, Willard V.  
 Nash, Arthur E.  
 Nelson, Arthur T.  
 Nelson, Edwin E.  
 Newhall, Ernest L.  
 Nichols, Arthur R.  
 Nickerson, Arthur H.  
 O'Connell, George P.  
 O'Neill, Jeremiah F.  
 Patch, Claude E.  
 Pearson, Rev. Philip C.  
 Pender, Walter P. R.  
 Pendergast, Roland B.  
 Philbrick, Burton G.  
 Philbrick, Joseph  
 Place, Clyde R.  
 Pollard, Edson T.  
 Pope, Robert A.  
 Proctor, Redfield  
 Putnam, Walter  
 Rice, Winthrop M.  
 Ritchie, A. Eliot  
 Robbins, Frank A., Jr.  
 Robinson, J. Albert  
 Rogers, Gardner  
 Rogers, George D.  
 Root, Franklin T.  
 Sawyer, Arthur H.  
 Seabury, George T.  
 Shedd, Charles L.  
 Sherman, Herbert L.  
 Smith, Charles A.  
 Smith, Frank H.  
 Smith, James W.  
 Sprague, Nathaniel, Jr.  
 Starr, Clarence D.  
 Stillings, Henry E.  
 Stockman, Orlando S.  
 Stone, Edward J.  
 Stover, Charles C.  
 Strand, Harry L.  
 Sturtevant, Edwin W.  
 Swan, Arthur E.  
 Taylor, Grant S.

Taylor, James L., Jr.  
 Taylor, Prof. Warren C.  
 Teague, Walter O.  
 Thomas, Charles S.  
 Thomson, David P.  
 Thurston, Ralph E.  
 Titcomb, Roland E.  
 Tolman, Charles P.  
 Towne, Willis H.  
 Trowbridge, Henry O.  
 Turner, Howard C.  
 Upham, Everett L.  
 Usher, Samuel, 2d.  
 Vatter, Wilbur L.  
 Wadleigh, John W.  
 Walker, Elisha  
 Walker, J. Murray  
 Weeks, Paul  
 Weld, Miss Lydia G.  
 Wemyss, Duncan  
 Westcott, Henry W.  
 Whitney, Philip R.  
 Whitney, Robert F.  
 Williams, Louis E.  
 Williams, Dr. Robert S.  
 Williston, William H.  
 Wood, Austin C.  
 Wright, Charles L.

## CLASS OF '03

Ackerman, Alexander S.  
 Adams, Louis W.  
 Aldrich, Chester S.  
 Allen, Arthur B.  
 Ancona, John F.  
 Atwood, Ichabod F.  
 Aylsworth, Joseph W.  
 Babcock, Frank G.  
 Bacon, Herbert M.  
 Baker, Horace S.  
 Ball, Sidney Y.  
 Bartlett, S. Russell  
 Bateman, George W.  
 Bates, Charles L.  
 Bates, John R.  
 Bennett, Arthur F.  
 Blunt, Mrs. Arthur A.  
 Blunt, Dr. Katherine  
 Brown, S. Porter  
 Chadbourne, Edward M.  
 Chase, Charles E.  
 Clark, Myron H.  
 Cole, Charles S.  
 Comer, Ernest A.  
 Cook, Robert A.  
 Cook, Walter L.  
 Cooper, Claudius H.  
 Cox, Frank G.  
 Cronenbold, Ernest J.  
 Crosby, Hewitt  
 Cross, William P.  
 Crowell, Harry C.  
 Cushman, James A.  
 Danforth, George C.

Davis, Francis W.  
 Denham, Howard S.  
 Dike, Miss Alice N.  
 Dooley, John J.  
 Doran, James F.  
 Druehl, Hugo W.  
 Drury, Walter M.  
 Eustis, Augustus H.  
 Eustis, Frederic A.  
 Fales, Henry H.  
 Ferris, Mortimer Y.  
 Fischer, Adolph L.  
 Fitzler, Henry  
 Foster, Stanley A.  
 Fowler, Theodore V., Jr.  
 Garber, Frederick W.  
 Garcelon, George H.  
 Gilker, William M.  
 Gilson, J. Lawrence  
 Godfrey, Otis I.  
 Gould, Le Roy B.  
 Green, Carlton F.  
 Greene, Edwin F.  
 Greene, George M.  
 Hamilton, Thomas M.  
 Hansen, Paul  
 Hardenbergh, Clarence M.  
 Harris, Galen M.  
 Hayden, Frank D.  
 Healy, Alexander  
 Heckman, John F.  
 Hepburn, Andrew H.  
 Howard, Prof. John W.  
 Howes, Ralph H.  
 Jackson, Robert F.  
 Jewett, Frank Du B.  
 Jones, John L.  
 Joyce, Clarence M.  
 Kaufman, Lewis R.  
 King, Robert J.  
 Lang, Alfred E.  
 Lawton, Richard M.  
 Lee, Mrs. John C.  
 Livermore, Robert  
 Locke, Herbert A. G.  
 Lord, Frederick K.  
 Loughlin, Dr. Gerald F.  
 Luquer, Lynch  
 MacCornack, Clyde W.  
 MacGregor, Roderick J.  
 McIntosh, Charles J.  
 McKelvey, Lucius B.  
 Manahan, Robert F.  
 Millard, Emmor H.  
 Mitchell, William E.  
 Mohler, David D.  
 Morse, Howard S.  
 Mulherin, Charles P.  
 Nields, Benjamin, Jr.  
 Nutter, Ralph H.  
 Olmsted, Frederic A.  
 Paine, Wilfred A.  
 Palmer, Virgil M.  
 Parker, Paul R.

Patch, Miss Emerette O.  
 Pelton, Ernest W.  
 Pemberton, Henry A.  
 Picard, Daniel C.  
 Plummer, Miss Laura S.  
 Porter, Samuel G.  
 Potter, Prof. Andrey A.  
 Pulsifer, Harrie B.  
 Raymond, Herbert E.  
 Reed, Frank C.  
 Regestein, Walter P.  
 Richardson, Robert L.  
 Sammet, C. Frank  
 Scherrer, Herman A.  
 Schmidt, Caspar A.  
 Scholtes, Alexander J.  
 Sears, Thomas E.  
 Seyms, George B.  
 Sheafe, James S.  
 Shurtleff, Mrs. Arthur A.  
 Sibbetts, George E.  
 Simpson, Horace G.  
 Snow, Miss Mary  
 Stiles, Harry A.  
 Strong, Homer D.  
 Sumner, Warren E.  
 Swett, Prof. George W.  
 Thompson, Edward C.  
 Tolman, Prof. Richard C.  
 Tuell, Samuel B.  
 Underwood, Lawrence H.  
 Waterman, Charles P.  
 Wehner, Lewis  
 Welsh, James W.  
 Whitcomb, Prof. William H.  
 Whitehead, Walter  
 Williams, Miss Dora  
 Williams, Irving  
 Wilson, George D.  
 Wing, William L.  
 Wood, George B.  
 Woodward, Clifford B.  
 Yerxa, Ralph B.

## CLASS OF '04

Allbright, Edwin F.  
 Anthony, William S.  
 Arnold, Albert H. B.  
 Arnold, Perrie M.  
 Atkins, George E.  
 Baker, James McF.  
 Ballou, Roland H.  
 Barnaby, George A.  
 Bartlett, Arthur W.  
 Bascom, Calvin P.  
 Bee, Albert W., Jr.  
 Bellows, Robert P.  
 Bixby, Llewellyn  
 Blackie, J. Frank  
 Blum, Bernard  
 Bridges, John S., Jr.  
 Brown, Moses, Jr.  
 Bull, Harcourt W.  
 Card, John F.



Carhart, Clem C.  
 Cerf, Harry H.  
 Chace, Franklin M.  
 Chamberlin, Noel  
 Charles, Evarts W.  
 Clifford, Ernest L.  
 Clingerman, Byron H.  
 Codd, Miss Eliza  
 Coffin, Miss Marion C.  
 Comstock, Prof. Daniel F.  
 Cox, Erskine H.  
 Crane, Jasper E.  
 Cronin, William W.  
 Crowell, Will R.  
 Cunningham, J. Earl  
 Currier, James S.  
 Curtis, George A.  
 Davis, Miss Grace E.  
 Dennie, Robert  
 Dimock, Roy E.  
 Draper, Herbert K.  
 Draper, John H.  
 Eager, William H.  
 Easterbrooks, Clifton C.  
 Edgcombe, William H.  
 Elmer, Charles W.  
 Elsas, Victor H.  
 Ellwell, David  
 Emerson, Charles J.  
 Emerson, Merton L.  
 Evans, William A.  
 Faulkner, Robert  
 Ferguson, William B. Jr.,  
 Ferris, Cyrus Y.  
 Field, Henry C.  
 Finnegan, Prof. Joseph B.  
 Gaenslen, George R.  
 Galusha, Don L.  
 Gerry, William F.  
 Gill, Walter J. Jr.,  
 Gillett, Louis G.  
 Goldstein, Moise H.  
 Grant, Leslie R.  
 Gunn, Selskar M.  
 Haar, Selby  
 Hadley, Walter E.  
 Hale, Richard K.  
 Haley, Humphrey M.  
 Haraden, Joseph A.  
 Harrington, George B.  
 Haynes, Charles R.  
 Hayward, Prof. Carle R.  
 Hecht, Julius L.  
 Higgins, Frederick L.  
 Hiller, Everett O.  
 Hodge, William E.  
 Holcombe, Amasa M.  
 Holmes, Addison F.  
 Hopkins, Leonard O.  
 Horton, Frederick W.  
 Hoy, Charles W.  
 Jacobs, Alfred H.  
 Kaiser, George K.  
 Kalmus, Dr. Herbert T.

Keen, Walter T.  
 Keith, Mrs. George H.  
 Keller, Dennie K.  
 Kendall, Harry S.  
 Kilham, Miss Frances R.  
 Lang, Currier  
 Langley, Arthur H.  
 Lounsbury, William C.  
 Lowry, Harold K.  
 Lyon, Prof. Alpheus C.  
 Lyon, J. Lawrence  
 McCormick, Mrs. Stanley  
 Mackay, Mrs. John D.  
 Magnuson, Mark G.  
 Mason, M. Edgar  
 Merryweather, Hubert  
 Miller, A. Otterson  
 Monsarrat, Charles R.  
 Mooers, Ben C.  
 Munster, August W.  
 Neal, Clarence A.  
 Needham, Harry H.  
 Nelson, Theodore  
 Newell, Lewis  
 Niles, Eliot W.  
 Nyce, J. Crawford  
 Ovington, Earle L.  
 Palmer, Guy P.  
 Palmer, Robert  
 Parker, Edward F.  
 Peiler, Karl E.  
 Phillips, Lee  
 Phinney, Robert M.  
 Pierce, Howard L.  
 Porter, Arthur P.  
 Reed, Rufus C.  
 Rice, Rowland G.  
 Rich, Edward B.  
 Richardson, Bertram A.  
 Richardson, Frederick L. W.  
 Richardson, Prof. Henry K.  
 Riddell, Guy C.  
 Roberts, Arthur O.  
 Rockwood, E. Farnum  
 Rollins, Harry T.  
 Rupf, Ernest L.  
 Russell, Eugene H., Jr.  
 Saegmüller, Frederick B.  
 Schaefer, Henry C.  
 Schwartz, Melvin H.  
 Severy, Frank J.  
 Shaw, George H.  
 Simonds, Clark D.  
 Skowronski, Stanislaus  
 Smith, Arthur D.  
 Smith, Leon H.  
 Snow, Norman L.  
 Sosman, Dr. Robert B.  
 Stebbins, Charles H.  
 Stetson, Edward E.  
 Stevens, Henry W.  
 Stix, Harry F.  
 Stutz, Walter F.  
 Sutton, David

Sweet, Arthur J.  
 Sweetser, Philip S.  
 Thompson, Herman E.  
 Thurlow, Oscar G.  
 Todd, William N.  
 Tripp, Edwin P.  
 Trowbridge, W. Waldo  
 Vosbury, W. DeWitt  
 Wadsworth, Philip  
 Wallon, Lewis A.  
 Webster, Arthur S.  
 Weymouth, Albert P.  
 Whipple, Leyland C.  
 Whitaker, William G. H.  
 White, Edward W.  
 White, Jules E.  
 Whitmore, Walter  
 Whitney, Harrison A.  
 Willard, Prof. Arthur C.  
 Williams, Clarence B.  
 Williams, Ralph B.  
 Williams, Mrs. Stillman P.  
 Wilson, Emery J.  
 Wilson, Lewis G.

## CLASS OF '05

Abbott, Arthur H.  
 Abbott, Fred H.  
 Allen, Roy H.  
 Anderson, Claude A.  
 Atwood, Carlton E.  
 Ayer, John  
 Ayers, S. Henry  
 Babcock, Courtlandt W.  
 Bailey, Herbert S.  
 Balkam, Arthur T.  
 Ball, William G.  
 Barlow, James E.  
 Barnd, Jules V.  
 Barnes, James P.  
 Barrier, Edward A.  
 Barrows, G. Herbert  
 Bartlett, George M.  
 Becker, William F.  
 Bedford, Thomas P.  
 Beers, William H.  
 Belding, Arthur F.  
 Bell, Raymond E.  
 Bender, Erwin F.  
 Bennett, Frederick G.  
 Bent, Walter G.  
 Bixby, William P.  
 Blair, Paul A.  
 Blodgett, Eber L.  
 Boggs, Charles R.  
 Broad, Charles E.  
 Brown, Joseph H., Jr.  
 Buff, Henry A.  
 Bunting, Charles K. H.  
 Burke, Fletcher H.  
 Burkhardt, Edward A.  
 Burns, Walter  
 Bushnell, Leonard T.  
 Cabell, T. Breckenridge

Charlesworth, Harry P.  
 Chesterman, Francis J.  
 Clapp, Dr. Charles H.  
 Clapp, George A.  
 Clark, Robert K.  
 Clarke, Walter A.  
 Clarke, William D.  
 Coffin, Edward M.  
 Cooper, Edgar B.  
 Cowdrey, Irving H.  
 Cowper, Howard M.  
 Craver, Frank S.  
 Cronkhite, Leonard W.  
 Crosby, Gorham  
 Crowell, Prince S.  
 Crowell, William H.  
 Cutting, Robert C.  
 Damon, John C.  
 Danforth, Carl E.  
 Daniels, Prof. Joseph  
 Darling, Philip G.  
 Davis, Roswell  
 Dean, Charles L.  
 Dean, H. Lawrence  
 DeMallie, James M.  
 Devlin, Leo J.  
 Dickerman, Albert C.  
 Dissel, Theodore A.  
 Donald, Harry W.  
 Douglas, John F. H.  
 Dwyer, Emmet  
 Edmunds, Howard M.  
 Eichler, Walter G.  
 Eisele, Herman  
 Elliott, Frank S.  
 Emerson, Charles A. Jr.  
 Fay, Ralph B.  
 Field, Charles, 3d.  
 Files, T. Herbert  
 Fisher, Andrew, Jr.  
 Flynn, John H., Jr.  
 Folsom, Robert M.  
 Fouhy, James F.  
 Fuller, George  
 Fuller, Laurence U.  
 Gerry, Arthur P.  
 Gifford, Ralph S.  
 Gilbert, Albert C.  
 Gilman, Wesley C.  
 Glidden, John T.  
 Goldthwait, Fred W.  
 Goodale, Percy A.  
 Gouinlock, William S.  
 Grady, Ronan C.  
 Graesser, Carl H.  
 Graham, Edwin S.  
 Green, Theodore  
 Green, William  
 Hadley, Ralph E.  
 Harding, Reynold M.  
 Harrington, Clinton O., Jr.  
 Harrington, Willis F.  
 Harvey, Harold B.  
 Hawkes, Charles W.

Helpert, Myron E.  
 Hickok, Harvey M.  
 Higgins, E. Leander  
 Hill, E. Bruce  
 Hill, E. Logan  
 Hill, Francis M.  
 Hill, Percy G.  
 Hine, Daniel  
 Hinkley, Philip E.  
 Hixon, Harold G.  
 Hood, Albert H.  
 Hool, Prof. George A.  
 Houck, Carl A.  
 Houskeeper, William G.  
 Howland, Arthur H.  
 Humphrey, William H.  
 Ingalls, Roger P.  
 Jackson, H. Louis  
 Johnson, Charles H.  
 Johnston, Charles W.  
 Jones, George B.  
 Joslin, Gilman B.  
 Keen, William H.  
 Kendall, Harry C.  
 Kenway, Herbert W.  
 Killion, Louis J.  
 Klahr, Charles D.  
 Lambie, James M.  
 Landers, Maurice B.  
 Lewis, Prof. Warren K.  
 Lindsly, Benjamin E.  
 Lombard, Norman  
 Loomis, Warren W.  
 Lord, C. Arthur  
 Lord, Robert H. W.  
 Lorenz, Edward H.  
 Loughlin, John S.  
 Lovejoy, Roy F.  
 Lyon, Waldo V.  
 MacBriar, Wallace N.  
 Mackie, Mitchell  
 McLean, Robert W.  
 Maddock, Mrs. C. S., Jr.  
 Mann, William S.  
 Manson, Arthur J.  
 Marcy, Grosvenor D' W.  
 Mayer, Charles B.  
 Mead, Edward A.  
 Meggison, John A.  
 Merrill, Alden  
 Merrill, Oscar C.  
 Mitchell, Harold W.  
 Molina, Vicente  
 Motter, William D. B., Jr.  
 Nesmith, Ralph H.  
 Newkirk, Miss Eliza J.  
 Newlands, James A.  
 Nicholson, Dow H.  
 Nuckolls, Asa H.  
 Ortseifen, Adolph J.  
 Paine, Paul M.  
 Parsons, Galt F.  
 Payne, Frank E.  
 Percival, Harry S.

Perkins, Grafton B.  
 Perry, George W.  
 Pickersgill, William C.  
 Poor, Edward J.  
 Prentiss, George W., 2d  
 Prescott, Albert G.  
 Prichard, Charles R.  
 Prince, A. Senior  
 Radford, George S.  
 Ralph, Paul J.  
 Rhodes, George I.  
 Richards, Nathaniel A.  
 Richmond, Waldemar S.  
 Riley, Francis B.  
 Robbe, Louis E.  
 Rodgers, Charles L.  
 Russell, Arthur E.  
 Ryan, Miss Ida A.  
 Schaefer, H. Frederick  
 Schonthal, Dez C.  
 Seaver, Samuel  
 Senger, Richard W.  
 Shapira, Samuel  
 Shaw, Thomas  
 Simpson, Willard E.  
 Smart, Charles E.  
 Smith, Albert H.  
 Smith, Albert L.  
 Smith, Converse  
 Smith, Edward C.  
 Smith, Edwin L.  
 Spalding, William L.  
 Starr, F. Charles  
 Steel, Edward T.  
 Stevenson, Henry J.  
 Strickland, Sidney T.  
 Strongman,  
     Miss Elizabeth J.  
 Tadgell, Alfred E.  
 Taylor, J. Wallace  
 Taylor, Winfred A.  
 Thomas, George C.  
 Thompson, Leigh A.  
 Tompson,  
     Mrs. Harold F.  
 Topper, William  
 Tower, Gilbert S.  
 True, Albert O.  
 Tufts, William  
 \*Turner, Robert N.  
 VanBrunt, Charles G.  
 Wales, Frederick C.  
 Walker, Hiram L.  
 Warren, Clarke E.  
 Washburn, Dr. Edward W.  
 Weaver, Earl C.  
 Wells, Albert W.  
 Wentworth, Henry A.  
 Whitcomb, Ralph N.  
 White, Ray H.  
 Whitehouse, Morris H.  
 Whitmore, Prof. James B.  
 Whittemore, Walter L.  
 Wiggins, Elmer W.

Wilcox, Herbert M.  
 Wilkiemeyer,  
   Dr. Frederick J.  
 Winship, Louis C.  
 Wise, Robert E.  
 Wyman, Phelps

## CLASS OF '06

Abbott, William G., Jr.  
 Ackerson, James L.  
 Adams, Daniel  
 Adams, Howard P.  
 Adams, Ogen R.  
 Ahern, Rev. Michael J.  
 Allen, Simeon C.  
 Anderson, Alf E.  
 Anderson, John W.  
 Andrews, Miss Mary R.  
 Anson, Charles L.  
 Ball, Herbert J.  
 Banash, James I.  
 Barber, Raymond J.  
 Bardwell, Earl S.  
 Bartlett, Edwin B.  
 Bartlett, Terrell  
 Batchelder, Frederick R.  
 Beers, Harold W.  
 Benham, Frank A.  
 Berliner, Edgar M.  
 Blackwell, Otto B.  
 Breitzke, Charles F.  
 Brown, Frank A.  
 Brown, Harry W.  
 Brown, Howard H.  
 Brown, Walter S.  
 Buchanan, James M.  
 Buckingham, George H.  
 Burke, Ralph H.  
 Burnap, George  
 Burpee, George W.  
 Burr, Shields  
 Campbell, Prof. Edmund S.  
 Carr, Sidney T.  
 Carruth, Henry P.  
 Carter, Clarence E.  
 Caypless, Willis S.  
 Chandler, Edward  
 Chandler, Fred W.  
 Chase, C. Heury  
 Chase, Edward S.  
 Chase, Eugene P.  
 Cheney, Arthur M.  
 Chidester, Arthur M.  
 Church, Harold D.  
 Clarke, Ralph S.  
 Clifford, Walter B.  
 Coe, Maxwell A.  
 Coes, Harold V.  
 Coey, Stewart C.  
 Critchlow, Paul N.  
 Cushman, Robert E.  
 Cutting, Spencer A.  
 Darling, Henry E.  
 Davenport, George L., Jr.

Davis, David C.  
 Davol, Walter D.  
 Deavitt, William J.  
 Dill, Colby  
 Dixon, Frank E.  
 Doepke, Robert H.  
 Donovan, John J.  
 Dyer, Ralph L.  
 Earle, Frederic E.  
 Eliot, Edward M.  
 Emerson, Carleton M.  
 Englis, William F.  
 Evans, Edward B.  
 Farwell, Carroll A.  
 Fuller, Floyd M.  
 Furer, William C.  
 Furness, George C.  
 Gammons, Herman T.  
 Gaylord, William W.  
 Gerhard, Norman P.  
 Gibbons, Michael J. Jr.,  
 Ginsburg, Henry A.  
 Greeley, Samuel A.  
 Gregson, Robert B.  
 Griffin, James E.  
 Groesbeck, Edward C.  
 Guernsey, George R.  
 Hall, Wallace R.  
 Hamilton, Charles E.  
 Hardy, William A.  
 Harrington, Elmer E.  
 Harrison, Jerome G.  
 Hayden, Ralph  
 Hemphill, Albert W.  
 Henius, Emil T.  
 Henrici, Hermann C.  
 Hertz, Alfred W.  
 Hicks, Alexander  
 Hill, Guy  
 Hinckley, Thomas L.  
 Hopkins, Walter A.  
 Hosmer, Miss Helen R.  
 Howard, Charles A.  
 Hoyt, Ray S.  
 Hursh, Robert  
 Isenberg, Hans O. C.  
 Jackson, Ralph T. C.  
 Janvrin, Robert D.  
 Johnson, Joseph W.  
 Kahn, Isa W.  
 Kasson, Charles L.  
 Keleher, Andrew H.  
 Kelley, Daniel P.  
 Kelley, Ralph D.  
 Kendall, Burton W.  
 Kennedy, Roy G.  
 Kerr, Andrew  
 Kidder, James W.  
 Knapp, William J.  
 Krag, Frederic S.  
 Lage, Frederico  
 Latham, Milton  
 Leeds, Charles T.  
 Libbey, Fay W.

Lightner, Milton T.  
 Line, Frederick C.  
 Lourie, William I.  
 Lyons, Robert J.  
 McCain, Elmer D.  
 McGinnis, Dr. Claude S.  
 McKay, Richard V.  
 McKernan, Joseph N.  
 Manning, Miss Eleanor  
 Marsh, Howard L.  
 Mayberry, Edward L.  
 Means, Dr. James H.  
 Mears, Henry S.  
 Merriam, Charles A.  
 Merriam, Harry C.  
 Mesmer, Louis F.  
 Monaghan, John E. L.  
 Morey, C. Burrows  
 Mowry, Charles W.  
 Munroe, Harold K.  
 Neale, Arthur  
 Neilson, William  
 Nelson, Henry H.  
 Newton, Sherley P.  
 Noble, George C.  
 Northrup, Carl F.  
 Orcutt, Harvey B.  
 Orme, James B. L.  
 Patch, Ralph R.  
 Patterson, Henry R.  
 Peebles, Dr. Elizabeth S.  
 Phelps, Fred S.  
 Philbrick, Halsey R.  
 Place, Mark H.  
 Polhemus, James H.  
 Poor, Fred W.  
 Porter, Prof. Royal A.  
 Pulman, Oscar S., Jr.  
 Raynolds, Russell P.  
 Root, John A.  
 Rose, Robert W.  
 Rowe, Edward B.  
 Ruggles, Guy H.  
 Ruppel, Henry E. K.  
 Sadtler, Philip B.  
 Santry, Joseph V.  
 Sargent, Ralph N.  
 Saville, Charles  
 Schmidt, Paul S.  
 Seyms, Robert W.  
 Sheldon, William A.  
 Sherman, Andrew B., Jr.  
 Shurtleff, Ralph  
 Simpson, Guy C.  
 Smith, Ernest M.  
 Smith, Miss Lillie C.  
 Stanley, Philip B.  
 Steinharter, Dr. Edgar C.  
 Stewart, Donald A.  
 Stone, Clarence N.  
 Stone, Lawrence E.  
 Taylor, Allyn C.  
 Terrell, Herbert A.  
 Thomas, Arthur S.

Tillson, Percy E.  
 Tomlinson, Everett F.  
 Trask, Walter H., Jr.  
 Trowbridge, Arthur T.  
 Tucker, Clarence E.  
 Walsh, William J.  
 Ward, Mrs. Frances V.  
 Watt, Arthur P.  
 Webber, Paul B.  
 Webber, Thomas G.  
 Wells, Arthur E.  
 Wetterer, Charles F. W.  
 White, Nathaniel A.  
 Whiting, Herbert S.  
 Wick, James L., Jr.  
 Wight, Malcolm G.  
 Wilder, Sylvanus W.  
 Willey, Nahum C.  
 Williams, Herbert L.  
 Willis, Charles F.  
 Winslow, Prof. Arthur M.  
 Woodbury, Ira V.  
 Wyman, Walter B.  
 Young, Harold E.

## CLASS OF '07

Adams, Franklin O., Jr.  
 Albro, Robert C.  
 Allbright, Clifford  
 Allen, Charles E.  
 Allen, Lawrence  
 Allen, Leon L.  
 Alvey, James P., Jr.  
 Arnold, Anthony B.  
 Ashenden, Richard C.  
 Baker, Prof. Cecil F.  
 Baker, Charles E.  
 Bancroft, Albert F.  
 Barker, Miss Bertha I.  
 Barker, Clinton C.  
 Barker, Prof. James M.  
 Barry, John G.  
 Bigelow, William W.  
 Bonta, Edwin W.  
 Bowen, Clarence A.  
 Bradley, John C.  
 Bradshaw, William H.  
 Bragdon, Charles R.  
 Brooks, Alfred A.  
 Burhans, Harry N.  
 Burwell, Albert L.  
 Chaffee, Emory L.  
 Chase, Howard R.  
 Coffin, William B.  
 Colvin, Percy J.  
 Conover, John W.  
 Coupal, J. Samuel  
 Crane, George A.  
 Cullimore, Allan R.  
 Cummings, Paul L.  
 Daniels, Francis E.  
 Davis, John A.  
 Davis, Lawrence R.  
 Dickson, Victor H.

Dodge, Parker  
 Draper, Clifton N.  
 Duncan, Harold S.  
 Eaton, Charles A.  
 Eisenhart, Martin H.  
 Emery, Quincy P.  
 Emilio, S. Gilbert  
 Fales, Otis G.  
 Farrington, Harold P.  
 Fellows, John H.  
 Fletcher, Herbert L.  
 Frame, Harry A.  
 Frank, John M.  
 Frederick, Paul  
 Freedman, Louis A.  
 Gale, Roger D.  
 Gardner, Horace L.  
 Garratt, James E.  
 Gould, Gardner S.  
 Greene, Albert E.  
 Greenwood, Phil P.  
 Griffin, George A.  
 Hale, Miss Annie P.  
 Hall, Ralph H.  
 Hall, S. Breed  
 Hamilton, Charles B.  
 Hamilton, Frank E.  
 Hampton, Lawrence C.  
 Hanford, Jesse W. G.  
 Haskell, Fitch H.  
 Hastings, Prof. Hudson B.  
 Hastings, Warren  
 Howe, Clarence D.  
 Hoyt, Henry P.  
 Hudson, Prof. Ralph G.  
 Jaccard, Frederick C.  
 Jansson, Arthur H.  
 Jealous, Arthur R.  
 Johnson, Reginald D.  
 Keeler, Warren I.  
 Keeling, Thomas C.  
 Kephart, Samuel A.  
 Keyes, Robert E.  
 Kimball, John  
 Kingsbury, Harold A.  
 Kirby, Walter B.  
 Knight, Ralph F.  
 Krafft, Alfred J.  
 Krafft, Elmer J.  
 Labbé, Antoine G.  
 Lamont, Clarence R.  
 Leavell, John H.  
 Lindsay, Roy W.  
 Loomis, Dan A.  
 Loring, Henry D.  
 Luther, George D.  
 McChesney, Howard A.  
 MacDonald, William H.  
 McElroy, James A.  
 MacGregor, Frank S.  
 MacGregor, Milton E.  
 McMillin, John M.  
 Macomber, Alexander  
 Madero, Julio

Mahar, John T.  
 Mahr, Herman W.  
 Marx, Samuel A.  
 Middleton, Nathan A.  
 Miller, Addison  
 Miller, Stuart R.  
 Moller, Kenneth  
 Moody, Harry L.  
 Moore, James G.  
 Moreland, Edward L.  
 Morrill, Fred W.  
 Morton, Howard J.  
 Naramore, Floyd A.  
 Nichols, Bryant  
 Norton, George R.  
 Nutter, Charles W.  
 Otis, George W.  
 Packard, Emerson H.  
 Peabody, Octavus L.  
 Pease, Maurice H.  
 Perry, William G.  
 Phelps, Eugene  
 Pope, Allen  
 Potter, Eugene V.  
 Prouty, G. Edward  
 Rayner, William P.  
 Rebori, Andrew N.  
 Reed, Earl H.  
 Reed, Harold D.  
 Reid, James  
 Richardson, Holden C.  
 Ripley, Franklin, Jr.  
 Robbins, Donald G.  
 Robinson, Winslow D.  
 Rood, Vernon S.  
 Ross, Robert J.  
 Sage, Merton W.  
 Sage, William H., Jr.  
 Sharp, B. Karl  
 Smead, Ralph A.  
 Smith, Theodore L.  
 Smith, Tracy  
 Soule, Winsor  
 Spear, Herbert G.  
 Squire, Edmund H.  
 Stevenson, Albert F.  
 Stewart, Morris A.  
 Stockwell, Frank C.  
 Story, Edward C.  
 Swett, Prof. Phelps N.  
 Tashjian, Armen H.  
 Temple, Edward H., Jr.  
 Thacher, Sheldon P.  
 Thomas, John J.  
 Thornton, Edmund A.  
 Trauerman, Carl J.  
 Tresnon, J. Ewart  
 Vedder, James R.  
 Vose, Chester A.  
 Waldo, Willis G.  
 Ware, Raymond  
 Wells, Sidney D.  
 Whited, Oric O., Jr.  
 Whitney, Erle F.



Whittemore, Leslie C.  
Wiggin, Albert E.  
Wilkins, Harold S.  
Wing, Edward H.  
Wires, E. Stanley  
Wonson, Harold S.  
Woodbridge, Richard G., Jr.  
Woodruff, John W.

## CLASS OF '08

Alford, Mrs. Edward B.  
Allen, Horace E.  
Allen, Lawrence H.  
Allen, Maurice E.  
Amory, Robert  
Angell, Robert C.  
Angus, Robert A.  
Babcock, Alfred B.  
Babcock, Miss Mabel K.  
Bangs, Carl H.  
Barnes, John S.  
Barton, William E.  
Batchelder, Ralph J.  
Batsford, Howard E.  
Belcher, George M.  
Bentley, Harry H.  
Blackburn, Henry W.  
Bond, Francis M.  
Booth, Wilfred E.  
Bowman, Donald  
Bradford, Alexander H.  
Bremer, Arthur E.  
Brooks, John C.  
Brown, Chester A.  
Brown, Philip C.  
Bullard, Benjamin  
Burch, James M., Jr.  
Burgess, Harry L.  
Cairns, Douglas  
Caldwell, Walter E.  
Carter, Harold L.  
Cary, Burton W.  
Cassidy, Rev. Herbert A.  
Chandler, Harry S.  
Church, Elliott S.  
Clapp, Chalmers S.  
Clark, Clarence W.  
Coffin, Langdon  
Cohen, Abraham S.  
Cole, Frederick A.  
Cole, Herbert A., Jr.  
Collins, LeSeur T.  
Collins, Richard C.  
Cook, Alton M.  
Cooke, George R.  
Coye, John S.  
Davidson, S. Lock  
Dexter, Gregory M.  
Dolke, William F., Jr.  
Drake, Raymond E.  
Edmonds, Charles A.  
Ellis, Leslie B.  
Ellsworth, John T.  
Emerson, Alexander M.

Emery, Albert G.  
Esten, Paul A.  
Ewing, Charles G.  
Ferrandi, Amedeo L. S.  
Ferris, Raymond W.  
Folsom, Rufus C.  
Folsom, William C.  
Ford, Winthrop D.  
Freethy, George E.  
Fretz, Paul H.  
Frey, Victor M.  
Friedman, Ferdinand J.  
Gallagher, James T.  
Gardner, Arthur L.  
Gaylord, John C.  
Gerrish, Herbert T.  
Gianella, John, Jr.  
Given, William B., Jr.  
Glover, George T.  
Goldthwait, Carl E.  
Goodman, Lynn S.  
Griffin, Wheaton I.  
Grimes, William F., Jr.  
Griswold, Harold W.  
Guilford, Irving M.  
Haas, Ludwig F. C.  
Hale, James E.  
Hall, Carl A.  
Hall, Sherwood, Jr.  
Handy, Percy L.  
Hatch, Samuel F.  
Hayes, Matthew C.  
Hazen, Howard S., Jr.  
Heath, Arnold W.  
Heimer, Paul H.  
Hershey, Ben  
Hinckley, Arthur T.  
Holmes, Bradford B.  
Howe, Dr. Eugene C.  
Hussey, Clarence L.  
Iasigi, Oscar A.  
James, Sydney V.  
Kedy, Stiles F.  
Kennison, Karl R.  
Kerr, William C.  
Kiefaber, Warren H.  
Kinsman, Charles C.  
Lalley, William H.  
Lees, George C.  
Leslie, Bernard S.  
Loeb, Leo  
Longley, Arthur A.  
Lord, Harry C.  
Luther, Howard B.  
Lyford, Emerson F.  
McCready, Harold  
MacKay, George M. J.  
McLaughlin, Peter F.  
Mason, Willis H.  
Maxwell, Donald H.  
Maxwell, J. Worth  
Mayo, Lincoln  
Medlicott, William H.  
Milne, William D.

Merrill, Arthur C.  
Mott, Frank E.  
Myers, Desaix B.  
Myers, Eleazar  
Newhall, Everett H.  
Nichols, Archer C.  
Nichols, James R.  
Norton, Paul W.  
Osborne, Harold S.  
Patten, Henry C.  
Peirce, Frederick N.  
Pitkin, Charles L.  
Place, Alfred G.  
Plumer, Edward A.  
Poor, Walter E.  
Pope, Joseph  
Powell, Paul R.  
Price, Edwin M.  
Putnam, Charlton D.  
Rapelye, Harry A.  
Reed, Walter D.  
Remon, John A.  
Reyburn, John R.  
Rice, Roger C.  
Richardson, Harry F.  
Riley, Edward J.  
Robertson, Robert, Jr.  
Robinson, Frank J.  
Sampson, Miles  
Sargent, Horace S.  
Scannell, Albert T.  
Schmidt, Frederick B.  
Schobinger, George  
Schiefer, Herman C.  
Scott, Edward J.  
Sewell, Henry R.  
Slack, Edgar P.  
Spengler, Warren D.  
Spiehler, Clarence H.  
Spurr, Henry V.  
Steele, Carroll D.  
Stewart, Joseph B., Jr.  
Stocking, William A.  
Sutton, Loyd H.  
Sweeney, Harry P.  
Tabor, John R.  
Taylor, Irvine S.  
Taylor, William C.  
Thompson, Abbot H.  
Thurlow, Leavitt W.  
Todd, Robert B.  
Toppan, William H.  
Towle, Franklin T.  
Turner, Douglas B.  
Vonnegut, Kurt  
Warren, Edmund L.  
Webb, Harry  
Weeks, Allen T.  
Weiler, Rudolph B.  
Welch, Geoffrey W.  
Wells, Eber I.  
Wemple, Leland E.  
Westervelt, George C.  
Whittle, George D.

Wiley, Frank W.  
Williams, Edgar I.  
Winch, Arthur C.  
York, Waldo C.

## CLASS OF '09

Adams, Elliot Q.  
Adams, Percival L.  
Atherton, Thomas H., Jr.  
Ayres, Richard S.  
Ballard, Harold F.  
Barnett, Louis  
Barnum, Edwards W.  
Batchelder, Charles L.  
Belcher, Daniel  
Belcher, Merton  
Belden, Charles J.  
Belknap, Howard P.  
Bender, Homer C.  
Bennett, Herbert H.  
Black, Thomas B.  
Blodget, William P.  
Bonzagni, Anthony A.  
Bowers, George W.  
Bowman, Bion A.  
Brooks, John N.  
Bullens, Denison K.  
Burgher, Ballard Y.  
Burgher, Stephen L.  
Burton, Felix A.  
Campbell, Alfred  
Chapman, Edward P.  
Chapman, Laurance D.  
Chapman, Thomas G.  
Chase, Philip H.  
Christie, John A.  
Clifford, Walter W.  
Cole, Marcus J.  
Conant, Arthur F.  
Congdon, Howard W.  
Connolly, Eugene L.  
Critchett, James H.  
Curley, Ernest  
Davis, John F.  
Davis, Myron M.  
Dawes, Chester L.  
Desmond, Thomas C.  
Dewey, Bradley  
Dort, Joseph C.  
Dow, Benjamin W.  
Drown, Henry C.  
Du Bois, Warren L.  
Dunnington, Francis H.  
Dyer, Brainerd  
Eaton, Warren M.  
Eddy, Lloyd C., Jr.  
Edes, Edward L.  
Elbert, John J.  
Ellis, Ridsdale  
Elton, Herbert C.  
Emerson, George L.  
Faulkner, Frederick R.  
Fick, Wilhelm G.  
Finnie, James I.  
Fisher, Howard C.  
Forrest, Lawrence R.  
Freed, Charles  
Gadsby, George M.  
Glancy, Robert C.  
Gordon, William S., Jr.  
Gram, Carl W.  
Gray, George H.  
Green, Fred M.  
Green, William D.  
Groff, James S.  
Gross, Dr. Cora B.  
Hardy, Mrs. Gladys M. E.  
Hartshorn, Derick S.  
Hartwell, Arthur E.  
Hatton, John M.  
Havens, Harry L.  
Haynes, Delos G.  
Haynes, George A.  
Healy, Leon J. D.  
Henderson, Austin B.  
Hoyt, Robert N.  
Hubbard, Carleton W.  
Hulsizer, Robert I.  
Hutchinson, B. Edwin  
Jackson, Alexander F.  
Jaeger, Frederick  
Jeffers, Robert B.  
Jenkins, Hubert O.  
Johnson, Lewis H.  
\*Johnston, Cyrus T.  
Jones, Allen, Jr.  
Jones, Barry H.  
Jones, Reginald L.  
Jones, William H.  
Joslin, Garnett A.  
Kelley, Mark E.  
Kellogg, Alfred G.  
Kelly, William J.  
Koppitz, Carl G.  
Laird, Walter S.  
Lang, Harold L.  
Lawrence, George L., Jr.  
Loomis, Lynn A.  
Loud, Francis M.  
Lovewell, Frank S.  
Luening, Eugene G.  
Luscomb, Miss Florence H.  
McCain, Samuel N.  
McClintock, Frank S.  
McCrary, MacHarvey  
Mahoney, William T.  
Main, Charles R.  
Marshall, Henry H.  
Martin, Thorndike De V.  
Marvin, David P.  
Matte, Andrew L.  
May, Kenneth S.  
Menke, Alvin F.  
Merrill, Edward D.  
Merriman, Thurston C.  
Millard, Reginald W.  
Miller, George  
Miller, Henry U.  
Montgomery, Thomas C.  
Morse, William B.  
Moses, Alonzo L.  
Muñoz, Ramon F.  
Nickerson, John W.  
Nicol, Norman C.  
Nisbet, Lewis D.  
O'Neill, Haylett  
O'Shea, Peter F.  
Otterson, John E.  
Paine, Harold W.  
Palmer, George T.  
Palmer, Herbert H.  
Pardee, Harvey S.  
Parker, Joseph W.  
Pearce, J. Stewart  
Pepper, Benjamin W.  
Pierson, Miss Ruth O.  
Pope, Chester H.  
Porosky, Matthew  
Putnam, Henry R.  
Read, W. Carlton  
Reed, Ralph O.  
Reeds, Clarence  
Reppert, George H.  
Rew, Morse W.  
Rice, Edward T.  
Robeson, Prof. Frank L.  
Robinson, Burr A.  
Robinson, Clark S.  
Rodman, Prof. Walter S.  
Rosenblatt, Arthur M.  
Ryerson, Edward L., Jr.  
Scharff, Maurice R.  
Schenck, Garrett, Jr.  
Schneider, Franz, Jr.  
Sharman, Frank W.  
Sharp, Harold  
Shaw, Arthur L.  
Sherman, Henry L.  
Sleeper, Dwight W.  
Smith, Phifer  
Smith, Robert L.  
Soderstrom, Francis H.  
Spencer, Henry K.  
Spooner, Thomas  
Stephenson, J. Newell  
Stewart, Harold O.  
Straus, Aubrey H.  
Svarz, Louis X.  
Temple, Raymond B.  
Terry, Michael  
Thompson, Miss Rebecca H.  
Thornley, Albert E.  
Tomonaga, Goro  
Towne, Lockwood J.  
Wallis, George E.  
Weinhagen, George, Jr.  
Weinstock, Robert  
Wells, Edward E.  
Whipple, Malon P.  
Whitaker, Harry E.  
White, Joseph H.  
Whitney, Lyman F.

Willard, John A.  
 Willmann, Mrs. W. F.  
 Winchester, Laurence S.  
 Witmer, George S.  
 Wolfner, Ira  
 Wood, Frederick B.  
 Young, Philip E.

## CLASS OF '10

Adler, Leon M.  
 Ahlers, John G.  
 Akerly, Harold E.  
 Allen, Abbott  
 Almy, Charles, Jr.  
 Anderson, Maurice P.  
 Andrews, Albert W.  
 Arkell, William C.  
 Armes, Roland K.  
 Avery, John  
 Babcock, John B.  
 Baldwin, José D.  
 Bartlett, Ralph L.  
 Batcheller, George E.  
 Baxter, Harry D. G.  
 Beebe, Hiram E.  
 Bell, Frank F.  
 Bien, Van Tuyl H.  
 Breyer, Robert S.  
 Briggs, Leroy E.  
 Brown, Dallas, Jr.  
 Brush, Reuben W.  
 Burnett, Robert F.  
 Carlisle, Tyler W.  
 Chaffee, Eben W.  
 Chapin, Maurice S.  
 Christiansen, Eugene O.  
 Clapp, Dudley  
 Clark, Eldon S.  
 Cleverdon, Herbert S.  
 Cohen, Samson K.  
 Conner, George C.  
 Cook, Hardy M.  
 Court, Alva B.  
 Crommett, Orrin J.  
 Cummings, Harold N.  
 Curtis, Allen  
 Curtis, Arthur H.  
 Davis, Luther  
 Davis, Walter S.  
 Dewey, Frederick A.  
 Dillon, Robert E.  
 Dodge, Robert L.  
 Downs, Loren N., Jr.  
 Drew, William N.  
 Everett, W. Dexter  
 Fabens, Andrew L.  
 Fales, Miss Helen L.  
 Fernandez, Richard O.  
 Follansbee, Everett M. H.  
 Foote, Arthur J.  
 Fowler, Herbert E.  
 Fox, George  
 French, Louis O.  
 Gasche, Karl W.

Gawne, James O.  
 Geary, Leslie E.  
 Gegenheimer, Ralph E.  
 George, Ralph M.  
 Gibbs, Daniel W.  
 Godley, Frederic A.  
 Goodspeed, George E., Jr.  
 Goodwin, Richard F., Jr.  
 Gould, Allen A.  
 Gray, John M.  
 Greene, Charles E.  
 Hague, Alfred  
 Hale, Henry A., Jr.  
 Harcourt, Guy N.  
 Harding, Arthur L.  
 Harrington, Walton  
 Harrison, J. Kearsley M.  
 Hart, Philip  
 Haugaard, William E.  
 Hemmenway, Laurence T.  
 Henderson, Stuart L.  
 Hersey, Mayo D.  
 Hield, Clifford C.  
 Higbie, Hamilton A.  
 Higgins, John J.  
 Hill, Frank H.  
 Hill, Roger F.  
 Hodges, Frank E.  
 Holbrook, Gordon G.  
 Howe, Edward S.  
 Huckins, Albert K.  
 Humphrey, George S.  
 Jacoby, Raymond W.  
 James, Gorton  
 Johnson, Macmillan H., Jr.  
 Jones, Bradley  
 Jones, Raymond L.  
 Joy, Charles F., Jr.  
 Kalbach, Lee  
 Lee, Lasley  
 Lewis, Richard W.  
 Lockett, Harold  
 Lodge, John  
 Lombard, Robert H.  
 Longyear, John M.  
 Lord, George R.  
 Lovejoy, Carl H.  
 Lufkin, Fred R.  
 Lunt, George P.  
 McRae, George W.  
 Magee, George H.  
 Maglott, George F.  
 Mann, Mrs. Ralph H.  
 Manson, Harold C.  
 March, William H.  
 Mason, Austin B.  
 Maxcy, Robert F.  
 Maxfield, Joseph P.  
 Mellish, Murray H.  
 Merrill, Edward F.  
 Meulendyke, Charles E.  
 Monto, Charles P.  
 Mylchreest, George L.  
 Myrick, John B.

Northrop, Joseph W., Jr.  
 O'Hearn, William J.  
 Orchard, William J.  
 Page, Atwood C.  
 Parsons, Harold F.  
 Peabody, Dean, Jr.  
 Pearl, Holman I.  
 Perry, Harold R.  
 Pettit, Bertholf M.  
 Phelps, Dudley W.  
 Phillips, Alfred I., Jr.  
 Pilling, Earl W.  
 Potter, Erford M.  
 Preston, Ralph A. D.  
 Ragsdale, Earl J. W.  
 Randall, Chester J.  
 Ranschoff, Nathan  
 Reynolds, G. Bergen  
 Reynolds, Herbert G.  
 Richardson, Henry B.  
 Rietschlin, Otto R.  
 Roads, George M., Jr.  
 Robinson, Charles F.  
 Rowe, Louis G.  
 Ruckman, John H.  
 Russell, Earl S.  
 Salisbury, George F.  
 Sargeant, French P.  
 Sawyer, Luke E.  
 Scarff, John H.  
 Scheuer, Jerome  
 Schleicher, Henry M.  
 Scott, Frank A.  
 Seeley, Nathaniel S.  
 Shaw, Carroll H.  
 Silsbee, Francis B.  
 Sittinger, Carl J.  
 Sneddon, J. Stuart  
 Southgate, George T.  
 Stein, Arthur L.  
 Stevens, Oliver  
 Stump, Horace E.  
 Sutherland, C. Hale  
 Taylor, Horace Van S.  
 Taylor, Philip W.  
 Taylor, Richard R.  
 Terry, Philip D.  
 Thomas, George S.  
 Tiernan, Martin F.  
 Tilden, Merrill W.  
 Tilton, Charles E.  
 Trevithick, Harry P.  
 Tripp, James G.  
 Trueblood, Howard M.  
 Turnbull, Myrton J.  
 Tuttle, John C.  
 Waldo, William R.  
 Waller, Robert P.  
 Wallour, C. William  
 Warren, Van Court  
 Waters, Lewis W.  
 Watson, Richard P.  
 Webb, Curtis C.  
 Wengert, William H.

Wentworth, John P.  
Whitney, J. Theodore  
Willoughby, Miss Alice S.  
Wohlgenuth, Bert S.

## CLASS OF '11

Aaron, Joseph A.  
Adams, Frederic H.  
Adams, Ralph G.  
Adkinson, Miss June  
Alexander, Harry S.  
Allen, David P.  
Allen, Walter D.  
Alter, John F.  
Althouse, Reuben Y.  
Anderson, Cedric S.  
Anderson, Robert E.  
Angell, Herbert A.  
Arms, John T.  
Ashley, Charles S., Jr.  
Avery, Philip S.  
Babbitt, Harold E.  
Bagg, John L.  
Bakewell, Donald C.  
Barker, Charles M.  
Barr, Kester  
Bartlett, Charles L.  
Bartlett, David E.  
Barton, Donald C.  
Barton, Royal M.  
Batty, Ernest J.  
Bean, Ormond R.  
Besse, Eldred E.  
Bierer, Ralph W.  
Bigelow, John A.  
Bogdasarian, Suren  
Bowman, John R.  
Brown, Miss Edith L.  
Brown, Harold C.  
Brown, George A.  
Brown, Perley K.  
Buckley, William J.  
Burleigh, William S.  
Caldwell, Philip L.  
Campbell, James K.  
Chamberlin, Olin V.  
Cheney, James B.  
Churchill, Fred R.  
Clark, Oberlin S.  
Coburn, William H.  
Coffin, Mitchell  
Colebrook, Maus W.  
Collett, Ove  
Collier, Ethan A.  
Comstock, Marshall E.  
Constable, John P.  
Cooley, Lloyd C.  
Copeland, Stuart B.  
Corts, F. Lester  
Cory, Marcus M.  
Coupal, Arthur E.  
Covill, Frederick W.  
Cowee, George A.  
Crane, Rufus

Cummings, George B.  
Cushing, Richard W.  
Daniels, Fred H.  
Darrow, Burgess  
Davis, Harold M.  
Davis, Henry C., Jr.  
De Forest, Norman S.  
Denison, Orville B.  
Dennett, Minot S.  
Dolliver, Henry F.  
Dow, Clarence W.  
Duffett, Norman  
Duffy, James F.  
Dunlap, J. Howard  
Dyer, Sterling B.  
Edwards, Charles, Jr.  
Emmel, Rudolph  
Estes, George H.  
Fales, Elisha N.  
Faunce, Kenneth W.  
Ferris, Livingston P.  
Forristall, George B.  
Foster, William D.  
Frazier, Donald N.  
French, Joseph N.  
Frigon, Prof. Augustin  
Fryer, Herbert  
Fuller, George  
Fuller, Joseph C.  
Gaillard, David P.  
Gardner, Albert L.  
Glazier, L. Gordon  
Goto, Kanezo  
Gravely, Julian S.  
Greenan, James O.  
Greenleaf, Cuthbert T.  
Greenleaf, Kenneth  
Grossman, Marcus A.  
Haines, Thomas H.  
Hall, Edward R.  
Hallett, Harold M.  
Harrington, Charles H.  
Harrington, Frederic C.  
Harrington, Joseph F.  
Hart, John P.  
Hartshorn, Stanford H.  
Haslam, Robert T.  
Hausman, Isaac  
Hawkins, Eldred B.  
Hayes, Samuel L.  
Hayman, Milton E.  
Herlihy, John A.  
Herman, Albert N.  
Herreshoff, A. Sidney D.  
Hess, Harry C.  
Hill, Bancroft  
Hobson, Charles F.  
Holbrook, Ralph A.  
Hopkins, Warren B.  
Hugelmann, John R.  
Humphreville, W. E., Jr.  
Hutchins, Otis  
Huxley, Roy D.  
Ireland, Howard P.

Jenks, Harold G.  
Johnson, Cleon R.  
Jones, Wesley T.  
Judd, M. Hubert  
Kaufman, A. Harold  
Kenney, George C.  
Kerr, C. Phillips  
Kilborn, Karl B.  
Killion, Thomas S.  
Kinney, Mark C.  
Knox, Harry G.  
Kruckemeyer, Edward H.  
Kushlan, Max.  
Lafrenière, Theodore J.  
Lake, Harry E.  
Larrabee, Herbert P.  
Lawton, Stanley H.  
Leary, Arthur F.  
Letton, Harry P.  
Linehan, Charles A.  
Lord, Harold S.  
Loud, Roger P.  
Lougee, Norman A.  
Lowenberg, Maurice J.  
McAllen, John L.  
MacKenzie, John D.  
Mackenzie, Morell  
McMillan, Lee R.  
MacPherson, Roy G.  
Magoon, Charles A.  
Maguire, Charles A. P.  
Manley, Harry L.  
Martin, William Hennick  
Mather, Robert H.  
Mathur, Bala P.  
Meisel, Otto C. F.  
Merrill, Charles H. S.  
Merrill, Leonard M.  
Meyer, Theodore F. W.  
Moore, Francis A.  
Morey, Chester T.  
Morrison, Ibrahim F.  
Morse, Robert E.  
Nealey, James B.  
Nitschke, Charles W.  
Odell, Laurence G.  
Omansky, Morris  
Orchard, William J.  
Osborn, Franklin, 2d  
Parker, Theodore B.  
Patrick, Lloyd A.  
Pead, William J., Jr.  
Pearson, Paul H.  
Pease, Ralph S.  
Pepper, Chester L.  
Perrin, Lester W.  
Perry, Clyde R.  
Pevear, Munroe R.  
Peycke, Armand H.  
Phillips, Walter I.  
Pierce, James B., Jr.  
Pillsbury, Arthur C.  
Polhemus, Theodorus  
Powell, Oliver D.



Proctor, John A.  
 Pugsley, Edwin  
 Pushee, Harold B.  
 Ranger, Richard H.  
 Rapelli-Oliver, George W.  
 Richardson, Webster  
 Richmond, Carl G.  
 Ridstrom, Eric H.  
 Robinson, Harold L.  
 Romer, John B.  
 Ropes, Ripley  
 Runels, Ralph E.  
 Rupert, Frank F.  
 Russell, Foster  
 Russell, Frank, Jr.  
 Salisbury, William C.  
 Savage, Edgar C.  
 Schafer, Carl A.  
 Schmidt, Samuel M.  
 Schurig, O. Robert  
 Scoville, John H.  
 Scribner, Samuel H.  
 Seligman, Wellesley J.  
 Shaw, Harold F.  
 Shaw, Joseph H.  
 Shenstone, Osborne H.  
 Shepherd, William A.  
 Shohan, Abraham  
 Simonds, Warren J.  
 Sinnicks, George A.  
 Sisson, Edward  
 Smith, Daniel J.  
 Smith, Frank G.  
 Smith, Harold A.  
 Smith, Hubert S.  
 Smythe, Chauncey B.  
 Southgate, Donald W.  
 Spalding, Sidney P.  
 Spencer, Roger M.  
 Stamper, William Y., Jr.  
 Stevens, Donald R.  
 Stewart, Oswald W.  
 Stibbs, Franklyn M.  
 Stimpson, Edwin F.  
 Stover, Charles R.  
 Stover, Lester A.  
 Strong, Charles R.  
 Sullivan, George P.  
 Thompson, Maurice R.  
 Tisdale, Harry R.  
 Tolman, Edward C.  
 Tolman, Mrs. Mayo  
 True, Guy W.  
 Urquhart, John A.  
 Van Hovenberg, Henry W.  
 Van Tassel, Edward D., Jr.  
 Vining, Ralph E.  
 Vose, Edwin C.  
 Waite, H. Stokes  
 Warner, William W.  
 Waterfall, Harry W.  
 Watson, George S.  
 Watson, John C.  
 Welch, Walter P.

Wells, Philip V.  
 Wells, Russell D.  
 Weltmer, Noyes  
 West, William C.  
 Wheeler, Thorne L.  
 Whitcomb, Emmons J.  
 White, Peter D.  
 Whitney, William O.  
 Whithed, Houghton H.  
 Whorf, Allison H.  
 Wilds, John L.  
 Wilkes, Gordon B.  
 Willis, Sumner C.  
 Wilson, Albert O.  
 Wilson, Irving W.  
 Wilson, Walter C.  
 Wood, Frank A.  
 Wood, Henry  
 Wood, Leland D.  
 Wood, Robert O.  
 Woodruff, John C.  
 Woodward, Edgar L.  
 Young, Erving M.  
 Zimmerman, Rufus E.

## CLASS OF '12

Anonymous  
 Abel, George H.  
 Alden, Frederick T.  
 Allen, Andrew F.  
 Allen, Vincent W.  
 Applequest, Jerome A.  
 Ayres, Richardson  
 Baker, Frederick  
 Ballard, Volant V.  
 Barker, Frederick W., Jr.  
 Barnard, Kenneth H.  
 Barry, John L., Jr.  
 Baxter, William H.  
 Benbow, David F.  
 Benson, Harvey S.  
 Bent, Donald E.  
 Bickerdike, Charles E. O.  
 Bird, William C.  
 Bond, Thomas D.  
 Brackett, Harold H.  
 Brann, Bertrand F.  
 Brigham, George B., Jr.  
 Brown, Samuel H., Jr.  
 Busby, Frederick H.  
 Caigan, Israel  
 Caldwell, Frank W.  
 Canaday, William A.  
 Cartwright, Kenneth  
 Cary, Charles A.  
 Catching, Harry H.  
 Cather, Jay H.  
 Clark, Franklin H., Jr.  
 Clark, Howard F.  
 Coddling, Henry W.  
 Cole, W. Graham  
 Coleman, Arthur M.  
 Collins, William L.  
 Connolly, John W.  
 Cook, James A.  
 Cooper, Lester W.  
 Cremer, Randall  
 Cummings, Lawrence T.  
 Curtis, Frank H.  
 Damon, H. Chester  
 Davis, Albion R.  
 Davis, Harold B.  
 Davis, Lewis  
 Davis, Roger W.  
 Day, Sidney L.  
 de Florez, Louis  
 Desloge, Joseph  
 Desloge, Marcel  
 Dierks, Frederick H.  
 Doble, Ralph N.  
 Dodge, Charles E.  
 Dows, Chester L.  
 Dudley, Boyd, Jr.  
 Dugan, William E., Jr.  
 Duke, Leslie B.  
 Dunbar, Henry C.  
 Duyser, Cornelius A.  
 Dwight, Carl W.  
 Eicher, Archibald M.  
 Eisenberg, Adolph M.  
 Eldred, Calvin P.  
 Fay, Horace B.  
 Ferry, Earl E.  
 Ferry, Ralph M.  
 Foley, Henry M.  
 Fox, Rudolph H.  
 Frank, Arthur W.  
 Fredriksen, Norman  
 Freedman, Abram J.  
 Freeman, John C.  
 Fuller, Francis R.  
 Gallagher, Vincent L.  
 Gershberg, Joseph  
 Glaze, John B.  
 Glidden, William R.  
 Goodwin, L. Hall  
 Graupner, Marcellus F.  
 Green, Walter P.  
 Greenleaf, Harold  
 Hakes, Jesse F.  
 Hall, John  
 Hammerstrom, William G.  
 Hanson, Hugo H.  
 Hanson, Ralph T.  
 Hargrave, John M.  
 Harkness, Albert  
 Haub, Miss Hattie D. F.  
 Hedden, Morris W.  
 Herreshoff, A. Griswold  
 Higgins, Clark F.  
 Holbrook, Edwin C.  
 Homan, Edmund L.  
 Howard, Gerald B.  
 Hunsaker, Jerome C.  
 Hunting, David M.  
 Hyde, Ralph E.  
 Jeffers, Paul E.  
 Jones, Charles C.

Jones, Philip C.  
 Kahn, Milton  
 Kebbon, Harold E.  
 Kenrick, Alfred F.  
 Kimball, Merrill J.  
 Lang, Walter W.  
 Lange, William H.  
 Lasier, Emery L.  
 Lawrence, Paul R.  
 Lenaerts, John H.  
 Lewis, Leon G.  
 Lombard, Oliver C.  
 Loweth, Frederick C.  
 Lynch, William C.  
 Mabbott, Harold C.  
 McAvoy, Francis T.  
 McDonough, Clarence  
 McGrath, David J.  
 McNeil, Nicholas T.  
 Manning, Harold G.  
 Marceau, Eugene T.  
 Marshall, Emory M.  
 Mason, Max C.  
 Matthews, Leroy A.  
 Merrill, Hamilton  
 Mills, Charles H.  
 Minton, John P.  
 Mitchell, Harold D.  
 Morash, Bernard H.  
 Morley, James H.  
 Morrow, Clarence E.  
 Mowry, Frederick L.  
 Murray, Michael W.  
 Murray, Wallace J.  
 Neff, Sidney C.  
 Nicholson, Ernest  
 Noyes, Jonathan A.  
 O'Brien, William G.  
 Osborne, Frank J.  
 Otis, Henry N.  
 Partridge, Henry H.  
 Payson, Horace S.  
 Pedersen, Aksel M.  
 Perrine, Charles O.  
 Pettingell, John M.  
 Pratt, Jabez H.  
 Pretzinger, Freeman A.  
 Priest, H. Malcolm  
 Raymond, John W., Jr.  
 Reeves, Bartow V.  
 Reid, Allen W.  
 Reiman, Clarence K.  
 Reynolds, Charles V.  
 Rhodes, George H.  
 Richards, George W.  
 Roberts, Wilbur T.  
 Robinson, George A.  
 Robinson, Kenneth C.  
 Rowley, Charles B.  
 Ruby, Walter M.  
 Rush, Prof. James E.  
 Salisbury, Willis R.  
 Sanburn, Justus C.  
 Sandston, Leonard M.

Scanlon, Richard H.  
 Schar, Robert S.  
 Schell, Erwin H.  
 Shepard, Frederick J., Jr.  
 Shore, John D.  
 Slade, Walter C.  
 Sloan, Vernon G.  
 Somers, Carl W.  
 Soulis, Hugh E.  
 Springall, Cyrus F.  
 Sprowls, George M.  
 Stobert, Robert C.  
 Stone, Ralph T.  
 Suzuki, Ewazo  
 Symonds, Ralph  
 Tally, Joseph I.  
 Taylor, Walter H. J.  
 Thompson, Alvin G.  
 Tomlinson, Daniel A.  
 Torrey, Bates, Jr.  
 Torrey, Ralph M.  
 Troland, Leonard T.  
 Tyler, Paul M.  
 Uman, George L.  
 Upham, Edwin O.  
 Van Syckel, E. Carhart  
 Vickers, Hayes B.  
 Walker, Lawrence B.  
 Webber, Charles W.  
 Wettengel, Everett B.  
 White, John H.  
 White, Lester M.  
 Whitmore, Charles M.  
 Whittlesey, John E.  
 Williamson, Paul R.  
 Willis, Charles M.  
 Wilson, Raymond E.  
 Wiseman, Robert J.  
 Wolfe, William S.  
 Woodward, Merle G.  
 Wright, Rowland G.  
 Yacoubyan, Vahan P.  
 Yerance, Alexander W.  
 Class of 1912-Class Treasury

## CLASS OF '13

Anonymous  
 Achard, Francis H.  
 Adler, Julian E.  
 Albee, Charles H.  
 Alden, Gardner R.  
 Allen, Mortimer P.  
 Alley, Walter W.  
 Allton, Robert A.  
 Armstrong, Dr. Donald B.  
 Atwater, Allen R.  
 Bakeman, George W.  
 Bartlett, George R.  
 Beale, Allen S.  
 Beale, James M.  
 Blatchford, John  
 Bonney, Robert D.  
 Bowman, Lee

Boynton, Winfred S.  
 Bray, Emerson L.  
 Brett, Clarence W.  
 Brewer, Allen F.  
 Brewster, Ellis W.  
 Bridge, Edward M.  
 Brooke, Barton E.  
 Brown, A. Laurence  
 Bruner, Harold G.  
 Bryant, William A.  
 Buchanan, Guy H.  
 Buck, Albert W.  
 Burdick, Charles L.  
 Burnham, Aubrey E.  
 Burr, Henry A.  
 Burrell, Gene N.  
 Burt, Philip V.  
 Butts, Allison  
 Bylund, Walter R.  
 Cady, Herbert B.  
 Cairns, Claude F.  
 Caldwell, Winthrop E.  
 Capen, George P.  
 Cardinal, Adolphe C.  
 Carpenter, Arthur W.  
 Champlin, Silas H.  
 Christie, Madison W.  
 Clark, Arthur H.  
 Cogan, Paul V.  
 Cohen, Joseph H.  
 Corrubia, Angelo B. M.  
 Crawford, Chauncy A.  
 Crawford, Harold E.  
 Crocker, Harold S.  
 Cross, Richard B.  
 Currier, Howard S.  
 Cushing, Burton L.  
 Custer, Levitt L.  
 Daggett, Robert G.  
 Daniels, Yllie J.  
 Davis, Ernest W.  
 Davis, Stanley H.  
 Davis, Tenney L.  
 de Coen, Emile G., Jr.  
 Dempsey, George A.  
 Denkinger, George M.  
 Devine, James H.  
 Dey, Kinsley Van R.  
 Downey, Edward A.  
 Downs, Donald V. L.  
 Edison, Charles  
 Evans, Frederick J.  
 Fallon, Charles G.  
 Faragher, Dr. Paul V.  
 Flanders, William N.  
 Flansburg, P. Leroy  
 Foley, John F.  
 Font, Manuel  
 Franzheim, H. Kenneth  
 Freeman, Roger M.  
 Gagnon, Earl E.  
 Gann, Dr. John A.  
 Gans, Robert S.  
 Ganser, Sylvan E.

Gentner, Warren A.  
 Gere, Edwin C.  
 Germain, Edward B.  
 Gibson, Algernon T.  
 Glancy, Warren E.  
 Glidden, Henry O.  
 Goff, James C.  
 Gotherman, Charles W.  
 Guild, William  
 Haglin, Charles F., Jr.  
 Hamilton, Kenneth D.  
 Harmon, Dr. Gaius E.  
 Harrington, Max H.  
 Harrison, Henry C.  
 Hart, Laurence C.  
 Hart, Mrs. Ray W.  
 Hartnett, Leo A.  
 Harty, John J., Jr.  
 Hastings, John M., Jr.  
 Haynes, Raymond B.  
 Herron, William E.  
 Hersom, Fred C.  
 Hession, John H.  
 Hill, Charles R.  
 Hillman, C. Kirk  
 Hirst, Arthur E.  
 Hodgman, Stanley H.  
 Horgan, P. Donald  
 Horsch, Dr. William G.  
 Hoyt, Lester, F.  
 Hurst, Edward  
 Hutchinson, Franklin, Jr.  
 Isenberg, Joseph M.  
 Jones, Albert M.  
 Jones, George H.  
 Kay, William deY.  
 Kelly, Prescott V.  
 Kennedy, Frederick H.  
 Kenney, Arthur W.  
 Ladd, John W. B.  
 Lane, Frederick W.  
 Lane, Gerould T.  
 Lanning, John G.  
 Lawrence, Horace M.  
 Leavitt, George E., Jr.  
 Lemaire, Lionel H.  
 Leshner, Robert A.  
 Levy, Maurice E.  
 Lewis, Malcolm  
 Loeb, A. Marshall  
 Loebenberg, Alfred  
 Lovell, J. Warren  
 MacDonald, Miss Effie L.  
 MacDonald, Eugene L.  
 MacKinnon, Joseph C.  
 McLellan, Herbert S.  
 Mahoney, Frank H.  
 Mangan, Edward H.  
 Marsh, Harold D.  
 Matthews, Lawrence H.  
 Mattson, William R.  
 Means, Alan H.  
 Menderson, Edgar  
 Merrill, Millard W.

Meserve, Orville W.  
 Mooney, William J.  
 Morrison, Alexander  
 Morse, Frederic T.  
 Morton, Francis B.  
 Munch, Benjamin S.  
 Murdock, Frederick D.  
 Mutersbaugh, Alonzo M.  
 Muther, Walter P.  
 Nelson, Albert P.  
 Nickerson, Harold L.  
 North, Rhys H.  
 Oppenheim, Joseph  
 Orr, Scott W.  
 Palmer, Walter  
 Pardey, Gilbert R.  
 Parker, Stanley W.  
 Parsons, Leon W.  
 Pashek, Albert L.  
 Pastene, Alexander J.  
 Pearce, Clinton E.  
 Peck, Harry D.  
 Pendleton, Ferdinand H., Jr.  
 Pinnock, T. Wellington  
 Poor, Nathan H., 2d.  
 Pratt, Edwin D.  
 Rand, Harold M.  
 Rankin, Ralph S.  
 Ranney, Alfred G.  
 Ready, William A.  
 Reed, Kenneth W.  
 Richter, George A.  
 Rider, Robert O.  
 Roe, Clarence S.  
 Rogers, Samuel E.  
 Rollason, Geoffrey M.  
 Rosenberg, Louis C.  
 Ross, Bradley T.  
 Russell, James G.  
 Sage, Nathaniel McL.  
 Sage, Mrs. Nathaniel McL.  
 St. John, Everett  
 Sampson, Ross D.  
 Schulze, Robert, Jr.  
 Scott, Kenneth A.  
 Selfridge, John S.  
 Selfridge, Samuel W.  
 Shaw, Herbert G.  
 Shoub, Hyman L.  
 Smith, Allison P.  
 Smith, Charles A.  
 Smith, Frank T.  
 Smith, Merrill J.  
 Spicer, Allen W.  
 Starr, George H.  
 Stern, David  
 Stillman, Frederick O.  
 Strachan, Joseph J.  
 Taber, George H., Jr.  
 Taft, Edgar W.  
 Taggart, Prof. Arthur F.  
 Taylor, Edward G.  
 Tennant, Joseph A.  
 Terry, Philip B.

Thomas, Benjamin F.  
 Thomas, Ralph L.  
 Thompson, R. Charles  
 Tirrell, H. Stanley  
 Tolman, Edward M.  
 Townsend, Arthur L.  
 Tremere, Benjamin B., Jr.  
 Trull, Charles E.  
 Tullar, Robert J.  
 Van Deusen, Donald H.  
 Vogel, Andrew  
 Vose, Arthur W.  
 Wallace, George R., Jr.  
 Walsh, Joseph V.  
 Waterman, Max L.  
 Weeks, Robert W.  
 Weil, Edgar H.  
 Weiss, Fernand C.  
 Wemple, Holland R.  
 Wetherbee, Chester P.  
 Whitehead, Walter L.  
 Whitman, Percy G.  
 Williams, Fay B.  
 Wright, Louis E.  
 Wright, Robert K.

## CLASS OF '14

Adams, Porter H.  
 Affel, Herman A.  
 Ahearn, Frank L.  
 Aldrich, Henry R.  
 Annin, Roswell H.  
 Atwood, F. Clarke  
 Balke, Frank C.  
 Barns, Frederick B.  
 Barratt, Roswell F.  
 Bates, Ralph D.  
 Baxter, Nelson E.  
 Beard, Gerald H.  
 Beaudette, Joseph  
 Berry, Carl M.  
 Blakeley, Gerald W.  
 Bommer, Fred W.  
 Borden, Howard G.  
 Bowler, Edmond W.  
 Bowman, Harry L.  
 Boyd, Ernest M.  
 Bristow, James J. R.  
 Broga, Wilson C.  
 Brooks, Nathaniel E.  
 Brown, Albert C.  
 Brown, Alexander P.  
 Brown, Harland F.  
 Burdick, John P.  
 Burnham, Lucian W.  
 Burns, Charles H.  
 Busby, Hibbard S.  
 Callahan, Cornelius J.  
 Callahan, Thomas H.  
 Calver, Homer N.  
 Campbell, Hugh M.  
 Campbell, Ross  
 Chase, Thomas L.  
 Chatfield, Charles H.

- Cleverley, Frank C.  
 Clisham, Ormonde C.  
 Conklin, Oliver E.  
 Conner, William S.  
 Corney, Chester A.  
 Creighton, James A.  
 Crittendon, Butler P.  
 Crocker, Ernest C.  
 Crommett, Charles F.  
 Cromwell, Benjamin C., Jr.  
 Crowell, Donald G.  
 Currier, Philip M.  
 Dale, Frederick A.  
 Davis, Carrol C.  
 Davis, Chester P.  
 Dawson, Elmer E., Jr.  
 Deal, Harold A.  
 Deckop, Joseph A.  
 Derry, Gardner C.  
 DeWitt, Arthur B.  
 Dickinson, Thorn  
 Dickson, Ross H.  
 Dierks, DeVere  
 Dinsmore, Ray P.  
 Dorrance, Arthur C.  
 Downing, Lester L.  
 Duff, Levi B.  
 Duffield, Thomas J.  
 Easter, James W.  
 Eberhard, Walter C.  
 Eichorn, William N.  
 Eksergian, Rupen  
 Fales, Dean A.  
 Faunce, Linwood D.  
 Favorite, Richard J.  
 Fay, Harold V. V.  
 Fick, Otto W.  
 Fisk, Eugene M.  
 Fiske, Charles P.  
 Frank, Earle N.  
 Frost, Irving F.  
 Furuichi, Tatsuo  
 Gallene, Victor J.  
 Gardner, Henry L.  
 Gazarian, Hamper T.  
 Ginsburg, Solomon M.  
 Goeth, Ralph C.  
 Graham, Arthur F., Jr.  
 Hadley, Egbert C.  
 Hadley, James A.  
 Hale, Bertrand H.  
 Hall, Herbert H.  
 Hall, Leigh S.  
 Hall, Oliver C.  
 Hamilton, Leicester F.  
 Hanson, Alfred E.  
 Harding, George W.  
 Hardy, Roy E.  
 Harlow, Hamilton  
 Harlow, Harold L.  
 Harper, Stirling H.  
 Harrison, Matthew  
 Hauser, Walter G.  
 Healy, Francis C.  
 Henriksen, Albert N.  
 Hines, J. Willis  
 Holmes, James T.  
 Hou, Moo Ching  
 Houston, Walter P.  
 Hoyt, Albert J.  
 Hsu, Paul H.  
 Hughes, Walter S.  
 Hull, Charles B.  
 Judge, James A.  
 Karns, Frederick P.  
 Kay, Vernon G.  
 Keating, Harry M.  
 Keith, Walter P.  
 Kerr, Ernest  
 Klipstein, Herbert C.  
 Larkin, Edward W.  
 Leathers, Walter H.  
 Leslie, Freeland H.  
 Lewis, Merton B., Jr.  
 Lovett, Israel H.  
 Lucas, William E., Jr.  
 McCullough, Percy  
 McFarlin, C. Kirk  
 Mackentepe, Fred F.  
 MacKenzie, Clifford R.  
 Mackenzie, Malcolm C.  
 McPherrin, William L.  
 Magoon, Estus H.  
 Maier, Charles G.  
 Martsoff, Jesse E.  
 Mason, Karl C.  
 Maxim, Myles S.  
 Mayer, Harold A.  
 Mayo, Dana H. N.  
 Merrill, Stanley W., 2d  
 Merry, Ralph E.  
 Mitchell, Earle A.  
 Moorhouse, R. Wharton  
 Moreno, Jorge I.  
 Morrill, Philip E.  
 Morrison, Howard A.  
 Morse, John C.  
 Munn, D. Walter  
 Murphy, Robert J.  
 Muzzey, Clifford L.  
 Newlin, Earl M.  
 Newsom, Reeves J.  
 Norwood, Charles E.  
 Osborne, Ernest L.  
 Owen, Paul B.  
 Page, Arthur S.  
 Paris, Israel  
 Parker, Earl S.  
 Parsell, Roy L.  
 Parsons, Robert  
 Peaslee, Arthur F.  
 Peck, Edward B.  
 Perley, George K.  
 Petts, Arthur F.  
 Rauber, Benjamin T.  
 Reber, James B.  
 Richardson, Lyle M.  
 Richey, Thomas B.  
 Richmond, Harold B.  
 Ricker, Claire W.  
 Rood, Stanley H.  
 Root, John A.  
 Root, Maurice T.  
 Ross, Clyde P.  
 Ruoff, Chauncey F.  
 St. Clair, Palmer, Jr.  
 Sayward, Malcolm J.  
 Scannell, Philip L.  
 Shaw, Charles  
 Shaw, Harold D.  
 Sheehan, Thomas W.  
 Shepard, Arthur P.  
 Shurtleff, Ernest S.  
 Simpson, William A.  
 Smith, Marquis S.  
 Smith, Paul R.  
 Smyth, F. Hastings  
 Snow, Leslie W.  
 Snow, Welton A.  
 Snyder, Elwyn E.  
 Somerby, Frank S.  
 Spitz, Seymour J.  
 Stanyan, Starr W.  
 Staples, Elden I.  
 Stearns, Albert T.  
 Stevens, George S.  
 Stone, Howard L.  
 Stubbs, Arthur R.  
 Stump, Dwight J.  
 Sutherland, David L.  
 Swift, Angus V.  
 Tallman, Vernon M. F.  
 Taylor, Edward C.  
 Thomas, Winthrop G.  
 Thompson, Charles F.  
 Thompson, Newell A., Jr.  
 Thornton, Irving T.  
 Townend, Robert V.  
 Treat, Howard W.  
 True, Augustus S.  
 Turner, Earle O.  
 Tuttle, Robert H.  
 Van Etten, Frederic J.  
 Wagner, Gilbert A.  
 Waitt, Alden H.  
 Walsh, Leo F.  
 Walton, Clifford J.  
 Warren, William H.  
 Waterbury, Bayard H.  
 Went, Edward C.  
 Wescott, Ernest W.  
 Wheeler, Richard H.  
 White, James M.  
 Whitten, Francis Jr.  
 Wild, Marcellus E.  
 Wilkins, Charles H.  
 Wilkins, Harold S.  
 Williams, Fay W.  
 Williams, Roger  
 Wilson, Louis A.  
 Winninghoff, Dr. Wilford J.  
 Wood, Herbert B.



Woodward, Roland, Jr.  
Wylde, Harry M.  
Zimmele, George B.

## CLASS OF '15

Abrams, Allen  
Africa, Walter M.  
Alger, Philip L.  
Anderson, Albert H.  
Anderson, Herbert W.  
Ash, William E.  
Atkins, Bowman S.  
Bagdoyan, Sarkis M.  
Bailey, Richard O.  
Baker, Douglas B.  
Baldrey, Roland W.  
Ball, Joseph A.  
Barnwell, Joseph W.  
Bartlett, Ball  
Bassett, Harold R.  
Baxter, Stanley M.  
Belcher, Donald  
Bent, Harold T.  
Berg, Henning J.  
Berger, Henry E., Jr.  
Bidwell, Charles A.  
Bigelow, Lucius A.  
Blackmore, Charles T.  
Bond, Arthur H.  
Boynton, Francis H.  
Boynton, Kenneth K.  
Brackett, William H.  
Brandt, Maurice F.  
Brown, H. Whittemore  
Burtner, Evers  
Byrnes, Benjamin H.  
Cady, Rush B.  
Caffrey, Augustine J.  
Calder, Charles H.  
Calderara, Charles A.  
Campbell, William L.  
Carson, James B.  
Casselmann, Elbridge J.  
Chellman, Lloyd H.  
Clark, Leland V.  
Clark, Sidney E.  
Clarke, Alfred H.  
Codwise, Philip W.  
Cohen, Jacob  
Colby, Harold L.  
Coldwell, Everett S.  
Cole, George H.  
Cole, Harry  
Coleman, Alfred V.  
Connor, Paul  
Cook, Alton A.  
Cook, Fred L.  
Cowdrey, Carl W. H.  
Cowles, Martin W.  
Craig, Harry L.  
Crowell, Harold R.  
Curry, Walter  
Daley, Henry F.  
Dalton, John N.

Dalton, Marshall B.  
Danker, Daniel J.  
Davis, Frederick A. W.  
De Beech, Albert V.  
Delano, Ray O.  
Doane, Norman D.  
Doane, Raymond O.  
Dodd, Marvin J.  
Dunn, Carl T.  
Dunning, Dean C.  
Durkee, Chauncey H.  
Easter, George J.  
Eaton, George O.  
Eddy, Carlton W.  
Edgerton, Harold C.  
Eisenberg, Samuel  
Ellicott, Charles E.  
Enebuske, B. Viking  
Field, Burnham E.  
Finkelstein, Joseph L.  
Fletcher, Ralph L.  
Fogerty, Joseph S.  
Foster, Frank R.  
Fox, Samuel M., Jr.  
Franks, James B., Jr.  
Freeman, O. Ricker  
Funk, Forest J.  
Gallagher, John S.  
Geer, Laurence P.  
Glynn, John W.  
Goodell, Edwin B., Jr.  
Hall, Alfred E. B.  
Hall, Charles L.  
Hall, Orie L.  
Hamburg, Abraham  
Harding, Marston  
Hart, Ralph  
Haslam, Greville A. G.  
Haylett, Robert E.  
Hayward, R. Loring  
Heath, Leslie J.  
Highley, Seward  
Hilbert, Otto W.  
Hill, M. Eben  
Hilton, Gabe  
Holway, William R.  
Hooper, Donald O.  
Houser, W. Arnold  
Howlett, Clarence W.  
Huff, Thomas H.  
Hughes, David M.  
Hull, Frank J.  
Huse, Kenneth  
Jacobs, Clifton N.  
Jasionowski, Vitold A.  
Jennings, William  
Jones, Fiske R.  
Jones, Pierre F.  
Joslyn, Ralph P.  
Kahn, Kenneth D.  
Kaufman, Mitchell B.  
Kelleher, John A.  
Keller, Parry  
Kennedy, Verne C.

Kimball, Norris E.  
King, Kenneth T.  
Kingsbury, Edward J.  
Klink, Nassime S.  
Lacy, Clive W.  
La Petra, Clinton W.  
Lamb, Lindsay C.  
Lamson, Horatio W.  
Landers, Bernard  
Lapp, Benjamin F.  
Leeb, Henry L.  
Little, John S.  
Livermore, Joseph M.  
Lyons, Brendon P.  
MacBride, Edwin T.  
McEwen, William R.  
Mack, Azel W.  
McMurtrie, Douglas H.  
McNamara, John H.  
MacNeill, Prescott W.  
Maconi, G. Vincent  
Malone, Charles B.  
Manbeck, Park D.  
Marion, H. Leonard  
Masucci, Peter  
Maxwell, Herbert O.  
Mead, George J.  
Mellema, William  
Merrill, Edwin E.  
Miller, Leo B.  
Mitchell, Robert W.  
Morse, C. Lester  
Morse, Herman E.  
Munn, Percival J.  
Munyan, Arthur T.  
Murphy, Francis E.  
Murphy, Harry J.  
Myrick, Franklin M.  
Neal, James B.  
Nelson, Arthur L.  
Neumann, Elmer H.  
Niemann, Henry  
Nixon, George F.  
Norberg, Elwin P.  
Norton, Charles G.  
Norton, Oliver G.  
Noyes, Charles W.  
Nye, Alfred F.  
Olesen, Charles W.  
Paine, Charles G.  
Palmer, Guernsey A.  
Parsons, Frank E.  
Peakes, Gilbert L.  
Perin, Donald W.  
Phelan, Joseph F.  
Pickering, Harold B.  
Pike, Waldo F.  
Pinkham, Millard B.  
Piza, St. Elmo T.  
Pollard, Reginald F.  
Pond, Thomas C.  
Price, William H., Jr.  
Purinton, Forrest G.  
Rice, Mrs. Julian

- Rogers, Homer "In Memory of"  
 Rooney, George T.  
 Rooney, William, Jr.  
 Rosenthal, Charles H.  
 Roy, Kenneth W.  
 Runels, Chester M.  
 Rutherford, Henry G.  
 Sabin, H. Palmer  
 Sampson, Albert E.  
 Sawyer, C. Baldwin  
 Schiess, Ulrich C.  
 Schmucker, Robert A.  
 Schneider, Solomon  
 Schoellkopf, Alfred H.  
 Schoeppe, Edward  
 Scully, Francis P.  
 Sears, Leo E.  
 Sears, Leslie R.  
 Sheils, Henry C.  
 Sherman, Robert P.  
 Simons, George W., Jr.  
 Skofield, George L., Jr.  
 Small, Philip L.  
 Smith, Clarence L.  
 Spear, Theodore F.  
 Spencer, William B.  
 Staub, John F.  
 Stelle, Edward H.  
 Stephenson, William W.  
 Stetson, Frederick W.  
 Stewart, Vernon T.  
 Stivers, Andrew J.  
 Stone, Nelson  
 Stringfield, Raymond B.  
 Surls, Frank L.  
 Swain, Wilbur A.  
 Swift, Herbert D.  
 Tallman, William  
 Teeson, Ercell A.  
 Thomas, Howard C.  
 Thomas, Wallace S.  
 Thomson, Malcolm  
 Tisdale, Ellis S.  
 Toabe, Kebe  
 Tobey, James A.  
 Tolman, Samuel L.  
 Turrell, Herbert N., Jr.  
 Urquhart, George R.  
 Vogel, Fred J.  
 Walcott, Raymond H.  
 Walker, Edward C., 3d.  
 Walter, Albert U.  
 Ward, Charles J.  
 Ward, Eugene V.  
 Wardle, Andrew N.  
 Wardwell, Virgil E.  
 Warfield, George H.  
 Waterhouse, Hiram Y.  
 Weaver, Eastman A.  
 Welles, Robert  
 Weymouth, Paul W.  
 Whearty, Frank S.  
 Wheeler, Alden D., Jr.
- Whitall, Charles W.  
 Whitcomb, Herbert H.  
 White, Donald H.  
 Whitman, Warren C.  
 Whitwell, George E.  
 Williams, Charles W.  
 Willis, Sanford L.  
 Wilson, Gardiner C.  
 Wolfe, Christian F.  
 Wood, Carl W.  
 Woolley, George T., Jr.  
 Wostrel, John F.  
 Young, Louis H.  
 Zepfler, Louis H.
- CLASS OF '16
- Ahearn, Richard L.  
 Alfaro-Moran, Ralfael  
 Allen, George P.  
 Ames, Warren  
 Aronson, Mark  
 Austin, Paul P., Jr.  
 Baker, Philip C.  
 Ball, E. Leo  
 Balyozian, Nicholas  
 Barker, Dana N.  
 Barney, Eugene J.  
 Barrett, William J.  
 Bennett, Horace R.  
 Berger, Richard G.  
 Berke, S. Ross  
 Berrigan, Thomas A.  
 Best, Leonard E.  
 Binger, Walter D.  
 Blank, Wesley H.  
 Bliss, Mervin W.  
 Blodgett, Charles A.  
 Bolton, Meade  
 Boulton, Berthoud C.  
 Bousquet, L'Roche G.  
 Bradley, Leverett  
 Breaker, John S.  
 Bresth, Alexander  
 Brooks, Phillips N.  
 Brophy, Thomas D'A  
 Brown, Raymond G.  
 Brown, Willard C.  
 Brown, William G.  
 Bryant, Frederick C.  
 Bucknam, Frank W.  
 Burbank, James A.  
 Burkhardt, Harold H.  
 Burnap, Robert S.  
 Burnham, Horace C.  
 Bush, Dr. Vannevar  
 Buxton, Paul H.  
 Carr, Jasper B.  
 Cellarius, Charles F.  
 Chandler, Charles H.  
 Chandler, Frank D.  
 Chandler, William S.  
 Childs, Frederick W.  
 Christensen, Miss Abby W.
- Clarkson, Edward H., Jr.  
 Clarkson, Freeman  
 Claussen, Howard P.  
 Coffin, William E.  
 Coleman, Caruthers A.  
 Correia, Joao N.  
 Cousineau, Aimé  
 Crosby, Robert A.  
 Crosier, Charles L.  
 Curtis, Theron S.  
 Darlington, Frank G.  
 Davies, Ralph V.  
 Davis, Charles J., Jr.  
 Dean, Kemerton  
 Devine, Elbridge R.  
 Dodge, Harold F.  
 Dodge, Mrs. Parker  
 Drummey, William W.  
 Duggan, Joseph R.  
 Dunn, Donald O.  
 Ellicott, Valcoulon LeM.  
 Ellsworth, Samuel M.  
 Fair, Gordon M.  
 Farhi, Joseph  
 Farrar, John R.  
 Farthing, William J.  
 Fisher, D. K. Este, Jr.  
 Fleming, William H.  
 Foote, Francis C.  
 Foster, Howard L.  
 Fouhy, Joseph J.  
 Freed, E. Stanley  
 Freeman, Hovey T.  
 Freeman, John R., Jr.  
 Fry, Charles W.  
 Fuller, Harold C.  
 Gagnon, Ernest C.  
 Groerer, Herbert  
 Gilkey, Herbert J.  
 Goldstein, Edwin J.  
 Gooding, Percival  
 Gore, John  
 Graves, William L.  
 Gray, Harold P.  
 Green, Howard W.  
 Gross, Charles F.  
 Gruber, Rudolf E.  
 Grubnau, G. Malpass  
 Guething, Carl T.  
 Guss, Maynard C.  
 Haines, Elmer B.  
 Hale, Edwin D.  
 Hanford, Edgar F.  
 Harrington, Carlin F.  
 Harrower, Paul D.  
 Harshbarger, Venaldo H.  
 Hart, Robert F.  
 Hastings, Henry W.  
 Hatch, Paul  
 Hauman, Earl L.  
 Hawes, Clayton P.  
 Hayden, Edmund McK.  
 Heynstall, John  
 Hewins, Edward F.

Hickey, John J.  
 Hine, Tredick K.  
 Hobbs, James B.  
 Holbrook, Frederick C.  
 Holmberg, Carl H.  
 Holmes, Albert  
 Holmes, Frank W.  
 Hood, John M.  
 Horwood, Murray P.  
 Howard, William F.  
 Hudson, Charles M.  
 Hunneman, John R.  
 Hunt, Frank S.  
 Ingle, John B.  
 Jackson, Harvey W.  
 Jacobson, David L.  
 Jewett, Theodore C.  
 Jewett, Thomas G., Jr.  
 Johnson, Everett B.  
 Jones, Lee H.  
 Junkins, Walter H.  
 Keith, Stewart  
 Kemp, Emory L.  
 Kenney, Frederick S.  
 Kerstein, Benjamin H.  
 Kleinert, Albert E., Jr.  
 Klemm, Alexander  
 Knieszner, William T.  
 Knowland, Richardson G.  
 Lanphier, Basil  
 Lawrence, Charles W.  
 Leach, William B., Jr.  
 Lee, Marshall B.  
 Lewis, Chester F.  
 Liddell, William A.  
 Lieber, Albert C., Jr.  
 Lipman, Saul H.  
 Little, Thomas W.  
 Long, William E.  
 Loomis, Charles W.  
 Lord, Charles R.  
 Lovell, Carleton W.  
 Lucas, E. W. VanC., Jr.  
 Luykx, Dirk J.  
 Lyman, Richard S.  
 McCarthy, Charles J.  
 McDaniel, Irving B.  
 McDevitt, John N.  
 McDowell, J. Spotts  
 Mack, Lewis G.  
 McKown, Frederick W.  
 MacRae, Nelson  
 McSweeney, Thomas F.  
 Mahlman, Osborne LeB.  
 Maier, William D.  
 Makepeace, Charles S.  
 Marquez, Miguel, Jr.  
 Meigs, Joseph V.  
 Mellen, Earl R.  
 Mendelsohn, Herbert  
 Millis, Ralph  
 Mills, Ralph H.  
 Monroe, Merrick A.  
 Morgan, Charles D., Jr.

Morse, Henry G.  
 Moxon, Harold A.  
 Mueser, Mrs. E. Eduard  
 Murdough, James H.  
 Naumburg, Robert E.  
 Neave, Arthur S.  
 Nelson, Francis O.  
 Newcombe, Garfield M.  
 Nibecker, Alfred S.  
 Norris, Olen C.  
 North, Dexter  
 Ober, Shatswell  
 Ousler, George W.  
 Owen, Knight B.  
 Owler, Duncan S.  
 Page, Arvin  
 Parsons, Theodore D.  
 Patch, Ernest L.  
 Pattee, Miss Elizabeth G.  
 Patten, David L.  
 Pearson, Earle F.  
 Pettee, Allen D.  
 Porter, Herbert H.  
 Pratt, Lewis H.  
 Pratt, Merrill E.  
 Ralston, James M.  
 Raymond, Thomas E.  
 Reed, Charles S.  
 Reed, Walter V.  
 Repetti, George W.  
 Reycroft, Arthur G.  
 Richardson, Chester N.  
 Roberts, Miss Hazel E.  
 Robertson, John D.  
 Robinson, Edgar S.  
 Rood, Melville H.  
 Root, Marshall J.  
 Rowlett, R. Stewart  
 Russell, Harold  
 Ryan, Dennis F.  
 Saunders, Harold E.  
 Schabacker, H. Eric  
 Schur, Milton O.  
 Shakespeare, William M.  
 Shepard, Henry B.  
 Shuey, Arthur F.  
 Simpson, Stephen G.  
 Sloan, William J.  
 Smeltzer, Louis P.  
 Smith, Howard M., Jr.  
 Smith, Russell G.  
 Stetson, Bradford  
 Stevens, Louis W.  
 Stewart, Walter S.  
 Stickney, George H.  
 Stocking, Harvey C.  
 Stone, Leonard  
 Stowell, Raymond M.  
 Strangman, Warren A.  
 Strieby, Maurice E.  
 Sully, Kenneth M.  
 Sutherland, George  
 Sweet, George A.  
 Taveau, Mrs. Marie I.

Thomas, Henry von P.  
 Townshend, Bailey  
 Ullian, Hyman B.  
 Upton, Frederick P.  
 Vile, Norman J.  
 Vose, Lewis S.  
 Walker, Karl A.  
 Walter, Ray B.  
 Wareham, Charles M.  
 Warshaw, Nathaniel  
 Wasgatt, Miss Helen S.  
 Washburn, George H. T.  
 Webster, Donald B.  
 Weidig, Jacob K.  
 Weissbach, Edward A.  
 Wellington, Marshall S.  
 Wellman, Harvey E.  
 Wells, Arthur K.  
 Wells, Jackson B.  
 Wentworth, Wallace E.  
 Whitaker, Carl G.  
 White, Harold E.  
 White, Russell H.  
 Whiting, Edmund A.  
 Whiting, Harold W.  
 Whittemore, Harry E.  
 Wilson, Robert E.  
 Wolfe, Walter J.  
 Woodfall, Harold C.  
 Woods, John E.  
 Woolley, Charles H.  
 Wright, Leon S.  
 Wu, Hsien  
 Wyld, Wilfred A.  
 Wyman, George W.  
 Young, Vertrees  
 Zamore, Beiger V.

## CLASS OF '17

Abbott, George, 2d  
 Abels, Charles A.  
 Adams, Carleton C.  
 Albert, Calvin D.  
 Aldrin, Edwin E.  
 Allen, Chester K.  
 Alley, Harold C.  
 Althouse, Alfred K.  
 Ames, Chester E.  
 Angas, W. Mack  
 Arisaka, Ryohei  
 Atkinson, Charles E.  
 Atwood, Harrison H., Jr.  
 Auty, Clarence  
 Ayer, Harold E.  
 Babbitt, John H.  
 Bailey, Howard E.  
 Baker, Arthur De W.  
 Barnard, Charles T.  
 Barry, Edwin F.  
 Basch, Jacob J.  
 Batchelder, Sidney S.  
 Battis, Joseph T. W.  
 Baxter, Horace M.  
 Beadle, Walter J.

- Bealer, William P.  
 Beckanstin, Harry H.  
 Bell, Dudley E.  
 Bell, Kenneth E.  
 Bernard, Frederick  
 Bertelsen, Paul J.  
 Best, Tharratt G.  
 Bicknell, Miss Esther W.  
 Birk, Glover McM.  
 Black, Charles M.  
 Blakemore, Thomas L.  
 Blanchard, Raymond H.  
 Blouke, Pierre  
 Bone, Herbert L.  
 Bonnell, Williard E.  
 Brandegee, Morris M.  
 Brayton, Harold M.  
 Brock, Malcolm C.  
 Brooks, Arthur R.  
 Brooks, Edward P.  
 Brown, David M.  
 Brown, Roger B.  
 Brush, Charles F., Jr.  
 Buford, Albert W.  
 Burk, Herbert G.  
 Burkhart, T. Walpole,  
 Butterfield, Frederick H.  
 Butterworth, Frank L.  
 Cady, Lowell  
 Campion, William L.  
 Canan, William D.  
 Canby, Albert T.  
 Cargill, William W.  
 Carlton, A. Clifford  
 Carson, Frank S.  
 Catlett, Richard H.  
 Chase, Albert W.  
 Childs, Kenneth M.  
 Chisholm, Harold V.  
 Church, Vallette S.  
 Cianciolo, Philip J.  
 Clark, Edward L.  
 Clark, Ernest M.  
 Clayton, Henry C.  
 Clayton, Lawrence L.  
 Coburn, Charles L.  
 Cochrane, Clarence  
 Conaty, Francis S.  
 Crane, Frank N.  
 Creighton, Samuel H., Jr.  
 Cribben, Leo T.  
 Cristal, Philip N.  
 Crosby, Irving B.  
 Crowell, Christopher C.  
 Cunningham, Lawrence  
 Curtis, Brian C.  
 Daniels, Samuel  
 Davis, Franklin B.  
 Davis, Lawrence  
 Day, Kirkland H.  
 Dean, Carlton M.  
 Dean, William F.  
 DeBell, John M.  
 De Meritt, John E.  
 Dennen, William L.  
 Dexter, Franklin C.  
 Dickson, Arthur D.  
 Dickson, John B.  
 Dodge, Barnett F.  
 Donnelly, John J.  
 Donovan, George W.  
 Doon, James W.  
 Drobisch, Raymond W.  
 Dunbar, Joshua F., Jr.  
 Dunham, Atwood P.  
 Dunning, Stanley C.  
 du Pont, Francis V.  
 Duryea, George R.  
 Eaton, Irving C.  
 Eaton, Roland H.  
 Eaton, William W.  
 Eddy, Harrison P., Jr.  
 Enright Earle F.  
 Erb, Robert C.  
 Fales, William T.  
 Farnsworth, Augustus P.  
 Fay, Richard D.  
 Ferrall, James P., Jr.  
 Ferretti, Alfred J.  
 Fine, Harry  
 Fisher, J. Carl  
 Flagg, Paul M.  
 Ford, F. Leslie  
 Ford, Wendell B.  
 Foss, Frederic D.  
 Fraser, Miss Matilda A.  
 Fulton, Garland  
 Gamage, Frederick L., Jr.  
 Gannett, Robert  
 Gardner, Hartley B.  
 Gardner, Joseph P.  
 Gargan, Joseph A.  
 Gartner, Walter C. F.  
 Gauger, Raymond R.  
 Gaus, Gilbert H.  
 Gay, Robert N.  
 Gayhart, Everett L.  
 Gibbons, Thomas M.  
 Gillespie, Kingsley A.  
 Gilliard, Charles T.  
 Gilmour, Arthur E.  
 Gilt, Carl M.  
 Goepfert, Gale D.  
 Gokey, Noah W.  
 Goodale, Francis  
 Gorfinkle, Louis  
 Gramstorff, Emil A.  
 Gray, William A., Jr.  
 Groves, Leslie R., Jr.  
 Gurney, Stuart W.  
 Gustin, Ernest E.  
 Haggard, Roy S.  
 Hale, Edwin D.  
 Hall, Albert S.  
 Hall, Benjamin T.  
 Hammond, William S.  
 Hand, Carl N.  
 Hannah, Thomas E.  
 Hanson, Edwin R.  
 Hardwick, Richard  
 Harlow, Foster C.  
 Harper, John  
 Harrington, Walter  
 Hartman, Henry F. G.  
 Hastie, Frank B.  
 Hawes, C. Wesson  
 Heath, Elmer H., Jr.  
 Hegenberger, Albert F.  
 Henderson, George W.  
 Herbert, Serval  
 Hill, Lucius T.  
 Hills, Leander H.  
 Hodgson, Maurice L.  
 Hoffman, Leslie A.  
 Holden, Dudley F.  
 Holt, Clarence G.  
 Holt, Osgood W.  
 Holton, John H.  
 Hou, Te Pang  
 Houghton, Seymour P.  
 Huang, Han Ho  
 Huang, Shou-Heng  
 Hulburd, Philip E.  
 Hunt, Gilbert A.  
 Hunter, William B.  
 Hyde, Stanley W.  
 Igleheart, George P.  
 Johnson, Arthur K.  
 Jones, David M.  
 Judge, Charles E.  
 Keach, Leon  
 Keating, Arthur E.  
 Keene, Horatio N.  
 Kelly, Joyce R.  
 Kendall, Donald S.  
 Kenigsberg, Alexander H.  
 Kimball, Henry M.  
 Kittredge, George D.  
 Knapp, Harold A.  
 Knight, Arthur R.  
 Krigger, Anselmo  
 Krug, Frank S., Jr.  
 Kuhn, Samuel L.  
 Kuhns, Austin  
 Lane, Kenneth M.  
 Lane, Stanley M.  
 Lansil, Clifford E.  
 Laskey, William G.  
 Lauer, Luther M.  
 Lavoix, Alfred S.  
 Lawrason, Levering  
 Lee, Stephen M.  
 Leonard, Paul C.  
 Levey, Benjamin  
 Levi, Elijah  
 Lincoln, Fay S.  
 Litchfield, Allyne C.  
 Littlefield, W. Joseph  
 Lobdell, Harold E.  
 Logan Richard W.  
 Lohmeyer, William, Jr.  
 Lovejoy, George M.



- Low, Charles E.  
 Lowe, Richard V.  
 Lowengard, Richard O.  
 Lunn, J. Aleck  
 Lyons, Richard T.  
 McAdams, William H.  
 McClelland, Robert F.  
 McDonald, Harold J.  
 McDonald, Raymond E.  
 McGrady, Leon L.  
 McLaughlin, Richard J.  
 McLellan, Douglas H.  
 McManus, Joseph D.  
 McNeill, Winfield I.  
 McQuaid, Howard S.  
 MacRae, Duncan  
 Maeder, Raymond A.  
 Maguire, James F., Jr.  
 Maher, Philip F.  
 Malmfeldt, Carl J.  
 Mann, Howard G.  
 Marine, J. Sidney  
 Markham, Stephen J., Jr.  
 Marsilius, Newman M.  
 Martin, Richard P., Jr.  
 Martinez, John M.  
 Mason, Stephen S.  
 Matthews, Elmer C.  
 Medding, Walter L.  
 Mehaffey, William C.  
 Meloy, Thomas K.  
 Melvin, Howard L.  
 Miller, Arthur M.  
 Miller, Charles G.  
 Miller, Henry L.  
 Moody, Alvah E.  
 Morton, Adelbert R.  
 Moulton, Robert S.  
 Mulliken, Robert S.  
 Nelson, George A.  
 Neuberger, William D.  
 Newhall, Ralph P.  
 Niles, Alfred S.  
 Noyes, Linwood I.  
 O'Brien, James S.  
 O'Brien, Thomas F.  
 Ono, Rioye  
 Pace, Ernest M., Jr.  
 Panettiere, Vincent  
 Parker, Henry G.  
 Paul, Arthur H., Jr.  
 Payne, Edward B.  
 Peacock, Frank E.  
 Perry, Harold H.  
 Peterson, Oscar R.  
 Pettibone, Milton W.  
 Pierce, David E.  
 Pollard, Edward V.  
 Polley, Edgarton G.  
 Pond, Walter F.  
 Potter, Percy O.  
 Pouchain, René A.  
 Powers, Harold F. L.  
 Proctor, Charles D.  
 Proctor, J. Worthen  
 Pryor, Willard L.  
 Ramsey, John R.  
 Randolph, Frank H.  
 Richmond, Kenneth C.  
 Roberts, Claudius H. M.  
 Rockett, Francis H.  
 Rogers, Frank C.  
 Rogers, Herman L.  
 Rogers, Jesse A., Jr.  
 Ross, Charles E.  
 Ross, Ralph H.  
 Ross, William B.  
 Rounds, Edward W.  
 Rowe, Philip N.  
 Ryan, Thae W., Jr.  
 Salt, Lloyd B.  
 Sampson, Edward  
 Sandborn, Lewis P.  
 Saville, Thorndike  
 Sawens, Russell H.  
 Sawyer, Ralph H.  
 Scannell, Robert H.  
 Schlaffhorst, Harold A.  
 Schoonmaker, Lucas E.  
 Seely, Clarence K.  
 Senter, Erasmus G., Jr.  
 Sewall, Edward D.  
 Sewall, Samuel  
 Shand, Robert G.  
 Siegel, Samuel  
 Simpson, Charles F.  
 Sims, Walter  
 Sindler, Jay J.  
 Small, Frank S.  
 Smith, Carroll C.  
 Smith, Frederick B., Jr.  
 Smith, Winfield W.  
 Solakian, Haig N.  
 Spear, George D.  
 Stahl, Theodore E.  
 Stearns, Frederick A.  
 Stearns, Harry C.  
 Stevens, George R.  
 Stevens, Raymond S.  
 Stewart, Howard R.  
 Stockmann, Erling B.  
 Strong, Walter B.  
 Stuart, Wallis E.  
 Sullivan, Alan P.  
 Sullivan, William A.  
 Swain, Donald N.  
 Swain, Winthrop C.  
 Sylvander, Roy C.  
 Tapley, Warren L.  
 Tarpley, Donald G.  
 Thexton, Clarence H.  
 Thomas, Francis E.  
 Thomson, Gerald W.  
 Thrasher, William E.  
 Toole, Harry S.  
 Tourtellotte, Neal E.  
 Toye, Kenneth B.  
 Tutein, Dexter A.  
 Tuttle, Albert E.  
 Tuttle, William F.  
 Twomey, Edward F.  
 Venable, Charles S.  
 Waechter, I. Edmund  
 Waite, David E.  
 Wallis, James E., Jr.  
 Wang, Hsi Chang  
 Warner, Edward P.  
 Watson, Philip B.  
 Wells, Benjamin S.  
 Wells, Burling D.  
 Wells, Everett D.  
 Wenzel, Adolphe H.  
 Westbrook, Leon R.  
 Weston, Timothy H.  
 Wettlaufer, Julius L.  
 Wheatley, Russell H.  
 Wheeler, Evan R.  
 Whetzel, J. Clyde  
 Whitman, Walter G.  
 Whitmore, John T.  
 Whitney, Richard T.  
 Williamson, Herbert C.  
 Williford, Forrest E.  
 Wisnew, Louis L.  
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 Wyman, Louis E.  
 Young, Irving W., Jr.

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 Beattie, C. Morton  
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 Berliner, Henry A.  
 Betts, Erving G.  
 Biggar, Walter T.  
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 Braislin, John C.  
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- Bushee, Ralph J.  
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 Chiu, Wei Yu  
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     Miss Elizabeth M.  
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 Flett, Lawrence H.  
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 Folsom, Rolfe A.  
 Ford, Karl L.  
 Foster, William C.  
 Franklin, Stanley H.  
 Fuller, Clarence C.  
 Geisler, Hugo P.  
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 Gore, Edward W.  
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 Greenleaf, Earl A.  
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 Guilbert, Horace M.  
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 Haertlein, Albert  
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 Herzstein, Joseph  
 Heyl, Robert C., Jr.  
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 Hopkins, Frank H.  
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 Hoyer, Stephen A.  
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 Lacey, Henry R.  
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 Layng, Edward C.  
 Legge, Elmer E.  
 Levine, Leonard I.  
 Linscott, Chester E.  
 Little, Edward N.  
 Lobos, Francisco  
 Longley, James E.  
 Longley, John R.  
 Lorenz, Otto C.  
 Loucks, Milton A.  
 Luce, Joseph A.  
 Lufkin, Garland  
 Lyons, Sanford C.  
 MacArdle, Donald W.  
 MacAskell, Donald  
 McCarthy, Edward B.  
 McCausland, John W.  
 McClellan, James L.  
 McFarland, David M.  
 McGreenery, Paul A.  
 MacGregory, Sherman A.  
 McGuigan, Joseph L.  
 McGuire, Waldemar S.  
 Machecha, George M.  
 McIntire, Ralph D.  
 McIvor, Carlisle C.  
 McLaughlin, Edward H.  
 McLaughlin, Harold C.  
 MacLeod, William R.  
 McVickar, Lansing  
 Magoun, Frederick A.  
 Mahony, Ralph G.  
 Manning, Eugene R.  
 Manter, Elwood M.  
 Marshall, Lawrence P.  
 Marshall, Leslie H.  
 Martin, Frederick R.  
 Martin, George R.  
 Mead, Edward A.  
 Means, L. Munger  
 Merrill, Donald G.  
 Miller, Alan  
 Miller, Raymond P.  
 Mitsui, Takanaga  
 Moran, Francis A.  
 Moylan, Lawrence J.  
 Mumford, Albert R.  
 Murray, George S.  
 Nangle, Charles J.  
 Newton, Edwin M.  
 Nishizaki, Katsuyuki  
 Norton, Frederick H.  
 Norton, John T.  
 Nute, Alden D.  
 O'Connor, Frank J.  
 O'Reilly, Gerald J.  
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 Richards, Henry E.  
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 Ryan, William P.  
 Sackett, George A.

- Sanders, Marshall T.  
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 Shelton, Philo S.  
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 Smith, Arthur  
 Smith, Granville B.  
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 Starr, Daniel L.  
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 Stockman, Charles C.  
 Strang, Peter M.  
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 Swan, Horace G.  
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 Timanus, Clarence S.  
 Travers, Frank A.  
 Turner, W. Hugh  
 Uebelacker, Armin A.  
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 van Zelm, L. Franklin  
 Vought, Alfred B.  
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 Wallace, Stuart G.  
 Warner, Donald D.  
 Washburn, Frederick A.  
 Weber, Harold C.  
 Whitcomb, Ralph L.  
 White, George R.  
 Whorf, Benjamin L.  
 Wiley, Sumner K.  
 Wilkin, Richard A.  
 Williams, Amory L.  
 Wills, Royal B.  
 Wilson, Walter C.  
 Winslow, Edward N.  
 Wirt, H. Loring  
 Woodland, Lester N.  
 Woodruff, Louis F., 2d  
 Woodward, John B.  
 Woodward, Mrs. John B.  
 Wright, Theodore P.  
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 Yeh, Yu Liang  
 Young, Ira R.  
 Young, Jacob
- Baker, Frederic A.  
 Balfour, Marshall C.  
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 Barney, Frederick W.  
 Barrett, Herbert W.  
 Bartlett, Ray H.  
 Beaulieu, Leo E.  
 Beckett, Minor M.  
 Bennett, William F., Jr.  
 Bent, Roderic L.  
 Berkowitz, Morris  
 Best, Herbert W.  
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 Blood, Roderick M.  
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 Bristol, Benjamin H., 2d  
 Brown, Louis A., Jr.  
 Bruton, Leonard M.  
 Bryant, Eliot H.  
 Burbank, Royden L.  
 Burbank, Wilbur S.  
 Burckett, Douglas M.  
 Cahill, Lawrence B., Jr.  
 Callanan, Francis J.  
 Camman, Oswald, Jr.  
 Cann, George W.  
 Carter, John S.  
 Cartwright, Ralph A.  
 Cashin, Richard F., Jr.  
 Chayne, Charles A.  
 Clark, Myron H.  
 Clark, Waldo B.  
 Clarkson, Albert B.  
 Cohen, Bernard S.  
 Coldwell, John S.  
 Coleman, Francis T.  
 Conners, Norman D.  
 Connors, Myles F.  
 Corthell, Huron D.  
 Coyne, Francis J.  
 Crowley, Daniel N., Jr.  
 Dalton, Laurence M.  
 Darling, Blake  
 Daube, Harold J.  
 Davidson, Kenneth S. M.  
 Davis, Cutter P.  
 Davis, Guy H.  
 Deacon, Edward F.  
 Derr, Thomas S.  
 Doten, Everett F.  
 Drew, Charles W., Jr.  
 Edson, Albert L.  
 Erving, John M.  
 Falkenberg, John J.  
 Falkenberg, Robert L.  
 Farist, Charles J.  
 Farrand, Edmund G.  
 Fennessey, Miss Elizabeth M.
- Farrington, Arthur E.  
 Fleming, George G.  
 Flynn, Edmund J.  
 Ford, Arthur R.  
 Freeman, Edward A.  
 French, George F.  
 Gail, George P.  
 Gibson, James W.  
 Gilbert, Ralph H.  
 Given, Frederick J.  
 Givotovsky, Victor T.  
 Goddard, Ross E.  
 Goldstein, Louis J.  
 Goodridge, Maurice E.  
 Goodwin, Thomas L., Jr.  
 Gould, J. Herbert Jr.  
 Griebel, Frederick W.  
 Guppy, Joseph S.  
 Hackett, Robert P.  
 Halfacre, George F.  
 Hall, Daniel C.  
 Hall, Roger T.  
 Hartman, Lewis E.  
 Hayes, Stuart J.  
 Herrick, Charles M.  
 Herzog, Herman A.  
 Hewes, Frederick R.  
 Heyman, Samuel  
 Hirsch, George B.  
 Hoffman, Alfred G.  
 Holmgren, Richard S.  
 Holt, James  
 Homer, Joseph W., Jr. "In  
 Memory of"  
 Hopkinson, Frederick J.  
 Howard, Edward M.  
 Hsueh, Cho Pin  
 Hu, Kuang Piao  
 Huang, Chi Yen  
 Hubbard, E. Russell  
 Hunter, Frederick L.  
 Inglis, George A.  
 Johnson, Arthur S.  
 Johnson, Rogers B.  
 Jones, Clyde C.  
 Kaiser, John H.  
 Kaupé, Arthur F.  
 Keith, Scott  
 Kelley, Leo A.  
 Kelsey, Alton S.  
 Kenison, Arthur C.  
 Kenison, Ervin M.  
 Kennedy, Charles T.  
 Kimball, Wirt F.  
 King, Ping Sze  
 Krebs, Carlos  
 Lafean, Raymond G.  
 Langille, Wilfred O.  
 Lavagnino, John F.  
 Lawton, Edgar H.  
 Leahy, William J.  
 Leland, Roger M.  
 Li, Shee-Mon  
 Lichter, Jacob

## CLASS OF '19

- Adams, Franklin S.  
 Alfaro-Moran, Augustin  
 Ames, Percy D.  
 Bailey, Wayland S.

- Liteheser, Robert R.  
 Little, Charles E.  
 Liu, Gee Call  
 Lloyd, T. Morse  
 Lundquist, D. Arthur  
 McCarten, George C.  
 McClintic, Howard H., Jr.  
 McCloskey, Lawrence C.  
 McIntosh, Alan H.  
 McKinley, Malcolm R.  
 McLaughlin, Eugene R.  
 McMorran, Alexander M.  
 MacMullin, Robert B., Jr.  
 Madancy, Sarkis M.  
 Magraw, George F.  
 Maloy, Charles B.  
 Marshall, Harold F.  
 Martinez, Marcial E.  
 May, Elliot D.  
 Mayer, Albert  
 Mayer, David O.  
 Maynard, Warren A.  
 Merrill, Herbert C.  
 Merrill, John O.  
 Merselis, Stephen A.  
 Michelson, George  
 Miller, Alan B.  
 Mito, Yoshihiko  
 Montgomery, Robert A.  
 Moody, Edward G.  
 Muller, Adolf L.  
 Nabeshima, Uhachi  
 Newcomb, Raymond  
 Noyes, Mason S.  
 Nutter, Karl L.  
 Osgood, William R.  
 Page, Arthur E.  
 Page, Sherwood  
 Parsons, Charles J.  
 Paterson, Ellsworth G. D.  
 Paulsen, Carley H.  
 Pease, Ralph H.  
 Perkins, Ernest F.  
 Phelps, Carl W.  
 Pierce, Edward F., Jr.  
 Pierson, Miss Margaret  
 Pinckney, William, Jr.  
 Plum, Svend M.  
 Poppic, Miss Clara  
 Powers, Ray  
 Prescott, Amos N.  
 Putnam, John P.  
 Rasmussen, Frederick J.  
 Reid, A. Lionel  
 Reis, James W., Jr.  
 Reynolds, Albert B.  
 Rhode, Philip L.  
 Richards, Alan G.  
 Richards, Arklay S.  
 Richardson, Edward A.  
 Riegel, John L.  
 Rigsby, Radford W.  
 Rodgers, Karl F.  
 Rommer, Henry  
 Ropes, Lawrence G.  
 Russell, Warren K.  
 Sanford, David C., Jr.  
 Sansberry, James C.  
 Scofield, Edward E.  
 Scully, James B.  
 Searles, Howard H.  
 Seifert, Edgar F. K.  
 Selya, Hyman P.  
 Sheeline, Paul D.  
 Shepard, William D.  
 Sherman, Benjamin H.  
 Shippey, Webster B.  
 Slotnik, Isidor  
 Smith, Frederick G. C., Jr.  
 Smith, Leighton B.  
 Smith, Merritt P.  
 Smith, Morton A.  
 Smith, Russell S.  
 Smoley, Eugene R.  
 Snow, William B.  
 Sorenson, Lloyd R.  
 Southwick, Bertram H.  
 Spiehler, Adolph F.  
 Staubach, Arnold B.  
 Stehle, Richard B.  
 Stevens, John  
 Stewart, Chester C.  
 Stiller, Harry  
 Strang, James M.  
 Sullivan, C. Raymond  
 Svenson, Carl L.  
 Swasey, Paul F.  
 Tan, Chen  
 Untersee, Maximilian  
 von Voss, Ernest F. D.  
 Warren, Alfred L.  
 Way, Donald D.  
 Weaver, Leon H. A.  
 Webber, Eaton  
 Webster, Dean K., Jr.  
 Weiskittel, Francis A.  
 Wells, Robert K.  
 Whiton, Henry R.  
 Williams, Miss Ellen E.  
 Wilson, Henry E.  
 Wiswall, George H., Jr.  
 Wolfe, Lester  
 Wood, Kenneth F.  
 Wright, Kenneth A.  
 Wyse, Francis O.

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 Abbott, Norris G., Jr.  
 Abbott, Samuel B.  
 Abboud, Alfred  
 Aborn, Robert H.  
 Abrahams, David J.  
 Abrams, Irving  
 Acosta, Alberto A.  
 Adams, Benjamin F.  
 Adams, Elliott A.  
 Adams, Elliott T.  
 Adams, Frederick W.  
 Adams, Theon G.  
 Adams, Theodore W.  
 Adams, Waldo  
 Adams, Weaver W.  
 Addicks, Allen D.  
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 Albrecht, Herbert O.  
 Alden, Philip M.  
 Alden, Ralph H.  
 Alder, Thomas W.  
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 Allen, Lawrence H.  
 Allen, Norman T.  
 Almquist, Frederick O. A.  
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 Altieri, Veto J.  
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 Andersen, Axel G. H.  
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- Aronson, Adolph H.  
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 Arzoomaniar, Samuel  
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 Avery, Whitney K.  
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 Bachmann, Albert E.  
 Bachmann, Emil J.  
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 Barrett, Harry C.  
 Barrett, William F.  
 Barriger, John W., 3d  
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 Barrow, William B., Jr.  
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 Bartlemo, Thomas  
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 Barton, Charles B., Jr.  
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 Basinow, Maurice  
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 Bayle, Joseph H.  
 Beadle, Harold I.  
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 Beattie, Malcolm B.  
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 Behman, William F.  
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 Benklides, Gabriel N.  
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 Benson, Clyde A.  
 Bergen, Martin J.  
 Berger, Sherwood I.  
 Berghaus, Theodore F.  
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 Berko, Paul M.  
 Berla, Julian E.  
 Berlage, Thomas N.  
 Bermingham, Franklin A.  
 Berry, Harold O.  
 Best, Ernest M.  
 Bibber, Harold W.  
 Bickford, Hamilton J.  
 Bickford, Jason T.  
 Biddell, Sidney M.  
 Bigelow, Edward E.  
 Billings, Franklin O.  
 Binns, Frederick W.  
 Bixby, Harold O.  
 Bixler, Donald F.  
 Bjerke, Harold R.  
 Bjercknes, Alf  
 Bjornson, Bjorn B.  
 Black, Stanley B.  
 Blackall, Frederick S., Jr.  
 Blackmer, Franklin H.  
 Blake, Charles H.  
 Blake, Winchester G.  
 Blanchard, Ford  
 Blank, Henry M.  
 Blatter, Rudolph H.  
 Blau, Henry H.  
 Blewer, Francis L.  
 Bliss, George  
 Bliss, Lawrence P.  
 Blomquist, Harold R.  
 Blood, Lawson T.  
 Blood, Mortimer C.  
 Bloom, Mortimer C.  
 Boghosian, Ardavast  
 Boisswian, John M.  
 Bolding, Edward M.  
 Boley, Frederick W.  
 Boli, George T.  
 Bolster, Robert P.  
 Bon, Herschel M.  
 Bond, Clinton L.  
 Bond, David B., Jr.  
 Bond, Horatio L.  
 Bond, Raymond S.  
 Bond-Nelson, Frank O.  
 Booth, Edward W.  
 Booth, Ralph D.  
 Borchgrevink, Finn  
 Borland, James P.  
 Bossert, Theodore W.  
 Boston, John L.  
 Boucher, William F., Jr.  
 Bouis, Clarence M.  
 Bovey, William H., Jr.  
 Bowditch, Frederick C.  
 Bowditch, Richard L.  
 Bower, Harold G.  
 Bower, John O.  
 Bowers, James A.  
 Bowles, Raymond L.  
 Boyd, Stanley W.  
 Boyden, Laurence E.  
 Boyer, Garth C.  
 Boyer, Harold R.  
 Boyer, Jerome L.  
 Boyer, Will W.  
 Boyle, Michael F.  
 Braaten, Ingvald T.  
 Brabrook, Harwood B.  
 Brackett, James E.  
 Bradley, Arthur I.  
 Bradley, Charles H.  
 Bradley, Frank L.  
 Bradley, Robert I.  
 Bradshaw, Greatore C.  
 Bragdon, Stanley B.  
 Brambach, Arthur N.  
 Brantingham, Charles A.  
 Brash, Julian E.  
 Bray, Paul A.  
 Bretting, Henry L.  
 Brewer, Frederick H.  
 Bricker, George W., Jr.  
 Brickett, Edward M.  
 Briggs, Charles V.  
 Briggs, Ferris B.  
 Briggs, Josiah M.  
 Brill, John L.  
 Brimblecom, Warren K.  
 Brink, Raymond O.  
 Brinkerhoff, James B.  
 Brittain, James F.  
 Britton, Frederick S.



- Brockett, Clyde P.  
 Brodhead, Elber H., Jr.  
 Brodrick, Ralph W.  
 Brokaw, Charles E.  
 Brolin, Willard A., Jr.  
 Bromley Gleason S.  
 Broockmann, Herman  
 Brookfield, George P.  
 Brooks, Frederick A.  
 Brouwer, Rodger De R.  
 Brown, Charles E.  
 Brown, Daniel A., Jr.  
 Brown, David P.  
 Brown, Dayton T.  
 Brown, Edward S.  
 Brown, Edwin C.  
 Brown, Everett C.  
 Brown, George A.  
 Brown, George I.  
 Brown, Harvey E.  
 Brown, Jonathan, 3d  
 Brown, Lewis N.  
 Brown, Louis J.  
 Brown, Paul B.  
 Brown, Philip S.  
 Brown, Robert H.  
 Brown, Ronald D.  
 Brown, Sampson  
 Brown, Sherwood F.  
 Brown, Wolfe W.  
 Brownell, Miss Dorothea De W.  
 Browning, Albert J.  
 Browniski, Beverly M.  
 Brun, Gunnar  
 Bruna, Agusto S.  
 Brunelle, Samuel A.  
 Bruner, Harry J.  
 Bruno, Theodore P.  
 Bruns, Ralph F.  
 Bryden, Colby W.  
 Byrne, Perry B.  
 Buck, Henry H.  
 Buckley, John E., Jr.  
 Buckner, Laurence O.  
 Budasuke, Rien  
 Bugbee, Harold  
 Bugbee, Percy  
 Buhler, August A.  
 Bullman, Benjamin P.  
 Bumiller, Theodore M.  
 Bundy, Howard E.  
 Bunker, Francis J.  
 Bunting, Frank T.  
 Burbank, Harold A.  
 Burchard, John E., Jr.  
 Burdell, Edwin S.  
 Burdick, Carl A.  
 Burkart, Edward H., Jr.  
 Burke, Alan W.  
 Burke, Arthur E.  
 Burke, Charles J.  
 Burnham, Charles H.  
 Burnham, Edward C.  
 Burnham, Laurence H.  
 Burns, Robert V.  
 Burr, Reginald G.  
 Burrell, Laurence K.  
 Burroughs, Malcolm S.  
 Burrus, Ray C.  
 Burt, Frederick J.  
 Burt, George H.  
 Burt, Nelson W.  
 Bush, Frederick H.  
 Butler, Spencer W.  
 Butter, Harold M.  
 Buttler, George H., Jr.  
 Button, Herbert C.  
 Byrne, Philip J., Jr.  
 Byron, Vaughn J.  
 Cadenas, Felipe E.  
 Caisse, William E.  
 Caldor, Louis J.  
 Caldwell, Harold B.  
 Calvert, Albert  
 Cameron, Edwin J.  
 Campbell, Elmer W.  
 Campbell, John  
 Campbell, Roy J.  
 Campbell, Thomas P.  
 Campbell, Tristram J.  
 Canzanelli, Andrew  
 Canzanelli, Attilio  
 Capps, Count B.  
 Card, Thomas B.  
 Carey, Malcolm L.  
 Carleton, Charles Du B.  
 Carleton, Ralph D.  
 Carlson, Carl E.  
 Carpenter, Donald F.  
 Carpenter, Fontinelle S.  
 Carpenter, John B., Jr.  
 Carpenter, Lansing T.  
 Carper, Gerald I.  
 Carroll, Edward V.  
 Carroll, Lee W.  
 Carter, Donald B.  
 Carter, James R.  
 Carven, Christopher C.  
 Carven, Rupert S., Jr.  
 Carvill, Arthur L.  
 Case, Rolland W.  
 Case, Willard A.  
 Casey, Bartholomew F.  
 Cassidy, Anthony B.  
 Cassell, Charles A.  
 Cassidy, John E.  
 Cauldwell, William A.  
 Cavarly, Haywood P., Jr.  
 Center, Warren N.  
 Chadbourne, Joseph H., Jr.  
 Chaffee, Joseph G.  
 Chaffin, Warren L.  
 Chaisson, Clarence H.  
 Chalfin, Samuel F.  
 Chambers, Ivan F.  
 Champion, Lester S.  
 Chan, Pei Yeung  
 Chandler, Myron K.  
 Chapin, Bernard L.  
 Chase, Charles A.  
 Chase, Hugh D.  
 Chatfield, Richard S.  
 Chellis, Lawrence D.  
 Chen, Chi-Shan  
 Cheng, Chan-Fu  
 Cheves, Langdon McC.  
 Chickering, John A.  
 Chien, Chang-tsu  
 Chin, Ting Hsin  
 Chirgwin, Fred H.  
 Chittick, Charles Y.  
 Choquette, Paul J.  
 Chou, Ming-Cheng  
 Christensen, Egil  
 Christoph, Joseph  
 Chue, Chi Tik  
 Chun, Ki Kee  
 Church, John W.  
 Church, Walter E.  
 Chutter, George A.  
 Ciampolini, Ettore  
 Clapp, Channing P.  
 Clapp, James K.  
 Clapp, Otis  
 Clark, Albert H.  
 Clark, Bradford J.  
 Clark, Edward C.  
 Clark, Edward P.  
 Clark, Edwin R.  
 Clark, Eugene K.  
 Clark, Eugene S.  
 Clark, Hobart  
 Clark, Howard T.  
 Clark, Ormand W.  
 Clark, Philip W.  
 Clark, Richmond S.  
 Clark, William A., Jr.  
 Clarke, Carole A.  
 Clarke, Walter E., Jr.  
 Clarke, William J.  
 Clarkson, Ernest D.  
 Clement, Harold S.  
 Clement, Franklin G.  
 Clements, William F.  
 Clifford, George O.  
 Clouth, Alfred A.  
 Cobb, Edwin A.  
 Cobb, Howard L.  
 Cochran, Archie P.  
 Cochrane, John D., Jr.  
 Cocks, Verne V.  
 Coddling, Laurence W.  
 Coffin, Asa K.  
 Coffin, Philip T.  
 Cofren, Warren L.  
 Cohen, Abraham  
 Cohen, Asher Z.  
 Cohen, Carl M.  
 Cohen, Nicholas  
 Cohen, Samuel  
 Cohen, Sigmund

- Colburn, Robert T.  
Cole, Harry  
Cole, Vernon C.  
Coleman, Clarence E. B.  
Coleman, Philip Le F.  
Collins, Howarth C.  
Collins, Jerome J.  
Collins, John J.  
Collins, William A.  
Colton, Henry S.  
Comey, Charles S.  
Conant, Lawrence W.  
Conant, Russell W.  
Conkey, Carl J.  
Conley, Edward M., Jr.  
Connell, Lawrence H.  
Connor, Arthur F.  
Connor, Harold A.  
Connor, James E.  
Connors, Matthew H.  
Connors, Philip A.  
Conolly, Whitman R.  
Coogan, Edward D.  
Cook, John V.  
Cook, Ralph M.  
Cook, Robert S.  
Coolidge, Winthrop K.  
Coombs, Richard H.  
Cooper, Benjamin A.  
Copellman, Solomon J.  
Corbett, Lloyd S.  
Corbett, William P.  
Corr, George T.  
Cosgrove, Joseph M.  
Cotter, Harold F.  
Couch, Henry R.  
Coughlin, Edward J.  
Coughlin, Henry W.  
Coughlin, William J.  
Coupland, Robert S., Jr.  
Cousins, Edward  
Cowie, Leland K.  
Coyle, John H.  
Crabb, John P.  
Craig, Arthur B.  
Craig, Arthur C.  
Craig, Edward M., Jr.  
Creel, Jesus L.  
Crispin, Gordon S.  
Crocker, Ernest C.  
Croft, Walter J.  
Crofton, Charles K.  
Crompton, Kenneth G.  
Cronin, Francis L.  
Crosby, Josiah D.  
Crosby, Paul W.  
Crosby, Robert R., Jr.  
Crosby, Thomas E.  
Croskery, Gordon D.  
Cross, Gorham L.  
Crowell, Henry P.  
Crowley, Andrew G., Jr.  
Crowley, Edwin B.  
Crowley, John W. A., Jr.
- Cryan, Martin C.  
Cudworth, James R.  
Culver, Henry F.  
Cummings, John S.  
Cummings, Robert F.  
Cunningham, Kenneth M.  
Curry, Justin R.  
Curtin, Frederic J.  
Cutler, George J.  
Cutter, George H.  
Cutting, Roger  
Cychol, John J.  
Daesen, John R.  
Dailey, William E., Jr.  
Daily, Robert G.  
Dakin, George W.  
Daley, William E.  
Damon, Roger H.  
Danehy, Edward J.  
Dateo, George  
Davenport, Arthur W.  
Davenport, Howard  
Davidson, Francis G.  
Davidson, Hobart O.  
Davidson, Stanley E.  
Davidson, Trevor O. M.  
Davila, Jorge V.  
Davis, Dale S.  
Davis, Elmer W.  
Davis, Ernest A.  
Davis, Harry J.  
Davis, Laurence B.  
Davis, Thomas B., Jr.  
Daval, Percy W.  
Dawes, Howard H.  
Day, Cyrus L.  
Day, Francis B.  
Deal, Harmon B.  
Dean, Fred R. E., Jr.  
Dean, George E.  
Dean, Winter  
De Castilo, José A., Jr.  
de Castro, Edson E.  
Decker, John R.  
de Ganahl, Carl  
Deisley, Milton W.  
Delany, Edwin F.  
de los Reyes, Crisanto S.  
de Mars, Paul A.  
de Martino, Felix, Jr.  
de Meulenaer, John  
Deming, Edgar D.  
Demmler, Albert W.  
Denbin, Adolph  
Dennett, Ellis H.  
Dennison, Edward S.  
Dennison, Harold T.  
Derby, Thomas H.  
Des Marais, George F.  
de Souza, Enrique  
De Staebler, Herbert C.  
Dettling, Charles J.  
Dewey, William F.  
Dexter, Howard W.
- Dibble, Wallace H.  
Dickerman, William P.  
Didier, Victor  
Didisheim, Frank M.  
Diechmann, Gustav H.  
Dietz, Walter  
Diggs, George L.  
Dillon, Frank H.  
Dillon, Frederick N., Jr.  
Dimmick, Henry S.  
Dimmock, Marion S.  
Dingee, Alexander L. M.  
Dippel, Carl D.  
Dittenhofer, Erb N.  
Dixon, Charles  
Dixon, Vladimir  
Doane, Foster P., Jr.  
Dobbie, John, Jr.  
Dodd, Robert E.  
Dodge, James H.  
Dodge, Malcolm G.  
Dodson, J. Lincoln  
Doe, Albion N.  
Doebler, Horatio W.  
Dole, Robert C.  
Donworth, Robert B.  
Dooley, Henry G.  
Dopmeyer, Arthur L.  
Dorr, Herbert R.  
Doubleday, James S.  
Dougherty, Isaac  
Dow, John A.  
Dow, Winthrop G.  
Dowling, Donald L.  
Downey, James F., Jr.  
Downing, Richard E.  
Doyle, Jesse I.  
Dresel, Ralph R.  
Drew, Samuel T.  
Drew, Thomas B.  
Driggs, John H.  
Driscoll, Walter B.  
Driscoll, William F.  
Drisko, Benjamin B.  
Drury, Ralph S.  
Duane, James  
Duane, Laurence E.  
Dube, Edouard N.  
Dubitsky, Samuel  
Duffill, Hugh P.  
Duge, Howard J.  
Dumas, Albert V.  
Duncan, Paul H.  
Duran-Ballen, Sixto E.  
Dutton, T. Dillwyn  
Du Vernet, John N.  
Dyer, Colver P.  
Dyer, George H.  
Dyer, Harry P.  
Dyke, Freeman H.  
Earle, Arthur H.  
Earle, Weston S.  
Eckburg, Adrian E.  
Eckles, Robert A.

- Eddy, Lawrence B.  
 Ede, Frank C.  
 Eder, Harold H.  
 Edgerton, Lewis S.  
 Edison, Theodore M.  
 Edmunds, Reginald W.  
 Edwards, Charles H.  
 Edwards, Edward R.  
 Edwards, Minot R.  
 Eiffe, John R.  
 Eiseman, Miss Martha  
 Eksergian, Carolus L.  
 Elliott, Josiah R., Jr.  
 Ellis, Carl A.  
 Ellis, Charles R.  
 Ellsworth, Alfred A.  
 Elmer, William B.  
 Elosua, Bernado  
 Emerson, Everett S.  
 Emerson, Lilley W.  
 Emery, Willard A.  
 Entwistle, Frederick T.  
 Entwistle, James L.  
 Epstein, Edward M.  
 Epstein, Nathan I.  
 Erickson, George L.  
 Erickson, Henry W.  
 Erikson, Alden F.  
 Espinosa, José C.  
 Etherington, Eric L.  
 Etter, Harold P.  
 Evans, James H.  
 Evans, Roger J.  
 Evans, Somerby R.  
 Ewertz, Harold N.  
 Ewertz, Roy W.  
 Fealand, Olaf H.  
 Facey, John A.  
 Fagan, Henry J.  
 Fahrenbach, Charles W.  
 Fairbanks, Herbert K.  
 Fairbanks, Robert D.  
 Fairbrother, Earle C.  
 Fales, Edward C.  
 Fales, Herbert G.  
 Falls, John F.  
 Fargo, Glenn E.  
 Farist, Charles J.  
 Farmer, George E.  
 Farmer, Miss Gladys M.  
 Farren, Merritt F.  
 Farrer, John A., Jr.  
 Farrisee, William J.  
 Farrow, Edward S., Jr.  
 Featherman, Sidney  
 Federhen, Herbert M.  
 Feinberg, Morris  
 Feinsilver, Joseph E.  
 Feldstein, Alexander  
 Fell, Norbert H.  
 Felsenthal, Robert M.  
 Ferdinand, Ralph E.  
 Ferrenbach, Gregory  
 Ferguson, Homer L., Jr.  
 Ferguson, Hugh S.  
 Ferguson, John S.  
 Ferguson, Norman E.  
 Ferguson, Warren T.  
 Ferguson, William R.  
 Ferreyra, Jorge E.  
 Ferris, Donald McK.  
 Field, David P.  
 Field, Harry P.  
 Field, Howard, Jr.  
 Field, Newman W.  
 Finch, Herman F.  
 First, Melvin J.  
 Fischer, Arthur H.  
 Fischer, Frederick C.  
 Fischer, Robert A.  
 Fisher, Benjamin, Jr.  
 Fisher, Lawrence B.  
 Fisher, Malcolm L.  
 Fisher, Raymond C.  
 Fiske, David L.  
 Fitzgerald, Gerald A.  
 Fitzgerald, Thomas E.  
 Flaherty, Franklin T.  
 Flaherty, John C.  
 Flanagan, Harold J.  
 Flanigan, Charles J.  
 Flather, Herbert H.  
 Flather, Joseph H.  
 Fleischer, Joseph  
 Fleming, Willard A.  
 Flemming, Hartwell  
 Flesh, David J.  
 Fletcher, Alfred H.  
 Fletcher, Frank A.  
 Flournoy, Algernon F.  
 Flynn, Bernard F.  
 Flynn, Henry  
 Fogler, Miss Florence  
 Folinsbee, Harrison D., Jr.  
 Forbes, William C.  
 Ford, James B.  
 Forrest, Charles G.  
 Forrest, Henry O.  
 Forrester, Joseph J., Jr.  
 Forsyth, Roland B.  
 Foster, Joseph W., Jr.  
 Foster, Robert D.  
 Foster, William P.  
 Fourcade, Germain A.  
 Fox, Gilbert McF., Jr.  
 Fox, Robert W.  
 Franck, Jerome J.  
 Frank, Nathaniel H.  
 Frazier, Richard H.  
 Frederickson, Gustav O.  
 Freed, Simon  
 Freedman, Leo H.  
 Freeman, William L.  
 Freeman, William M. B.  
 Freiheit, Adolph J.  
 French, Everett B.  
 French, Grant K.  
 Friedheim, Franz A.  
 Friedrick, Valentine, Jr.  
 Frost, Robert B.  
 Frost, Thomas H.  
 Frymoyer, Webster W.  
 Fuller, John R.  
 Fuller, Percy D.  
 Fulton, Charles C.  
 Fynn, George F.  
 Gage, Frank D.  
 Gallagher, Ernest F.  
 Gallup, William A.  
 Gardiner, Winston A.  
 Gardner, Curtiss T.  
 Gardner, Miss Edith B.  
 Gardner, Hunter E.  
 Garner, Jesse P.  
 Garnich, Ardath B.  
 Garrigus, Alfred C.  
 Gartland, Joseph W.  
 Gasser, Bernhard  
 Gatewood, Arthur R.  
 Gayley, Henry C.  
 Gebhardt, Louis F.  
 Geckler, Ralph C.  
 Gee, Richard H.  
 Gegan, John B.  
 Genaske, Albert S.  
 Gens, Morris H.  
 Gentleman, Lawrence M.  
 Germain, Edward, Jr.  
 Gerofski, Irvin  
 Giddens, Zambry P., Jr.  
 Gignilliat, Leigh R., Jr.  
 Gilchrist, Norman H.  
 Giles, John M.  
 Gilkeson, Charles L.  
 Gill, Fred M.  
 Gill, Thomas H.  
 Gilliatt, Leland W.  
 Givner, Joseph  
 Gladding, Wanton E.  
 Glancy, Joseph B.  
 Glassett, Alfred T.  
 Glassey, Frank P. S.  
 Glover, Everett C.  
 Godard, George D.  
 Godbout, Adelbert P.  
 Godfrey, Joseph K.  
 Goetchins, Rodney M.  
 Goff, Luther  
 Gokey, George F., Jr.  
 Goldberg, Abraham  
 Goldstein, Charles  
 Goldthwait, Joel A.  
 Gong, George  
 Goodnow, Donald R.  
 Goodnow, John M.  
 Goodwin, Harold L.  
 Gorden, Walter L.  
 Gordon, Ernest R.  
 Gordon, Julius  
 Gordon, Morris J.  
 Gordon, Samuel F.  
 Grady, William J.

- Graham, Lucius H.  
 Graham, Samuel L.  
 Gran, John E.  
 Grandgent, Charles H., Jr.  
 Granger, Harry I.  
 Grant, Charles T.  
 Graves, Arthur W.  
 Gray, Harland A.  
 Gray, John J.  
 Greaney, John F.  
 Greely, George B.  
 Green, Harry  
 Green, Heland J.  
 Green, Manuel M.  
 Greenblatt, Joseph  
 Greenblatt, Louis  
 Greene, Albert B.  
 Greene, Clark D.  
 Greenewalt, Crawford H.  
 Greening, Chester W.  
 Greenough, Ernest C.  
 Greenough, Russell F.  
 Greenough, William B., Jr.  
 Greenwald, Harold A.  
 Griffin, Franklin J.  
 Griffin, Sidney P.  
 Griffith, Hoyt S.  
 Griffith, Hurley G.  
 Grilli, John P.  
 Grimmons, John A.  
 Griswold, Earle A.  
 Griswold, Harold D.  
 Groisser, Bennett M.  
 Gross, Donald I.  
 Grosscup, Henry A.  
 Grossman, Meyer N.  
 Grover, Clayton D.  
 Grover, Newell A.  
 Gruessner, Edwin A.  
 Gruppe, Edwin A.  
 Guardo, James  
 Gubelman, Ronald O.  
 Guckes, Philip E.  
 Guerin, Frederick J.  
 Guerrieri, Salvatore A.  
 Guerrero, Alberto L.  
 Guimaraes, Atahualpa  
 Gundling, John W.  
 Gundry, Willoughby D.  
 Gurney, William B.  
 Gwynn, Herbert W.  
 Hackett, Howard D.  
 Haebler, Phillip E.  
 Haebler, William T.  
 Hagerton, Walter C.  
 Haigh, Edwin R.  
 Hails, Thomas J.  
 Haines, Henry R.  
 Haley, Hugh D.  
 Hall, Frank L.  
 Hall, George L.  
 Hall, Merton C.  
 Hall, Robert A.  
 Hall, Reginald S.  
 Hall, Sydnor  
 Hallett, Henry N.  
 Hallinan, Clement J.  
 Hallock, Robert L.  
 Halpin, John F., Jr.  
 Haltermann, Henry L.  
 Ham, Herbert C.  
 Hamburger, Mark V.  
 Hamburger, Walter J.  
 Hamilton, Kenneth G.  
 Hammond, Alden M.  
 Hammond, Elmer W.  
 Hammond, Merrill W.  
 Hampton, Arthur C.  
 Hand, Alfred  
 Hand, Larrabee D.  
 Hanley, Albert J.  
 Hanson, Einar S.  
 Hanson, Howard E.  
 Hanson, Launcelot W.  
 Hanson, Paul L.  
 Hardin, Eugene A.  
 Harlin, Eugene L.  
 Harman, Everett R.  
 Harmon, Forrest G.  
 Harmon, Lawrence E., Jr.  
 Harper, Harold V.  
 Harris, Henry R.  
 Harris, Louis  
 Harris, Louis B.  
 Harris, Lawrence I.  
 Harris, Maynard L.  
 Harris, Stanley N.  
 Harris, William W.  
 Harrop, James  
 Harsch, Erwin  
 Hart, Frank M.  
 Hart, Morris B.  
 Hartshorn, Stanley D.  
 Hartwright, Alva J.  
 Harvey, Alexander D.  
 Harvey, Arthur R.  
 Harvey, Clayton F.  
 Harvey, Joel D.  
 Harvey, Theron F.  
 Haseltine, Francis T.  
 Haskel, Robert W.  
 Haskell, Broderick, Jr.  
 Haskell, Henry C.  
 Hasslacher, Carl A.  
 Hassler, Frank R.  
 Hassold, Victor C.  
 Hastings, Atherton  
 Hastings, Philip M.  
 Hatch, Henry R., Jr.  
 Hatch, Philip H.  
 Hatfield, Samuel J.  
 Hatheway, Donald H.  
 Hauber, Joseph G.  
 Haueisen, Batist R.  
 Hauge, Gunnar  
 Haven, Franklin K.  
 Haviar, Martin M., Jr.  
 Hawley, William S.  
 Hayden, Albert C.  
 Hayden, Herbert L.  
 Hayes, Alvah G.  
 Hayes, John A.  
 Hays, James  
 Hayward, Roger  
 Hayward, Sumner  
 Haywood, Edward W.  
 Hazard, Schuyler, Jr.  
 Healy, John J., Jr.  
 Heap, Edwin J.  
 Hearne, Luther  
 Heathman, George W.  
 Hedberg, Harold F.  
 Hedlund, William T.  
 Heffernan, John T., Jr.  
 Heiss, Paul V.  
 Hemenway, Miss Elizabeth  
 Hemenway, Ralph W.  
 Hemenway, Seymour H.  
 Hemphill, John W., 2d  
 Henderson, Ernest F., Jr.  
 Henderson, James A.  
 Henderson, Robert H.  
 Hendrick, John E.  
 Hendrie, Robert E.  
 Hennessy, Daniel J.  
 Hennessy, John F.  
 Henrikssen, Sverre J.  
 Herbert, William F.  
 Herd, Richard G.  
 Herlihy, Fred W.  
 Hermann, Erwin R.  
 Herrick, Philip A.  
 Hershenson, Bert B.  
 Hershey, Robert L.  
 Hershfield, Hyman  
 Hersum, Harold D.  
 Hersum, Le Roy M.  
 Herty, Charles H., Jr.  
 Hewes, Walter R.  
 Hewett, George H.  
 Hickey, Herbert A.  
 Hickey, Thomas F.  
 Hildreth, Clark W.  
 Hill, Francis T.  
 Hill, Lewis LeR.  
 Hill, Sanford J.  
 Hillard, Paul N.  
 Hills, Henry W.  
 Hinds, Barrett G.  
 Hines, John J., Jr.  
 Hingston, Townsend H.  
 Hitchcock, Lauren B.  
 Hittinger, Richard, Jr.  
 Hobbs, Louis H.  
 Hobson, Frank F.  
 Hobson, Theodore F.  
 Hodges, William G.  
 Hodgins, Eric F.  
 Hoffman, John E.  
 Hogan, Randall J.  
 Holden, Arthur R.  
 Holden, Parker B.



- Holderness, George S.  
 Hole, Robert J.  
 Holland, Miss Laura H.  
 Hollander, Edward A.  
 Hollister, Edward W.  
 Holmes, Francis O.  
 Holmes, Philip B.  
 Homberg, Richard M.  
 Homer, Thomas J., Jr.  
 Homerberg, Victor O.  
 Honig, Albert R., Jr.  
 Honiss, William T.  
 Hooper, Fultz A.  
 Hooper, Wilford P.  
 Hoops, William A.  
 Hopkins, George R.  
 Hopkinson, Frederick J.  
 Horgan, Francis J.  
 Horn, Henry J., Jr.  
 Horovitz, Oscar H.  
 Hotchkiss, James R.  
 Houghton, Augustus S.  
 Houghton, Frank N.  
 Houston, David M.  
 Houston, John F.  
 Howard, Arnold E.  
 Howard, Edmund I.  
 Howe, Everett W.  
 Howe, Malcolm S.  
 Howe, Wallace L.  
 Howes, Homer V.  
 Howland, Warren E.  
 Howland, Wentworth T.  
 Howlett, Frank A.  
 Hoyt, Allen N.  
 Hubbard, Cecil H.  
 Hubbard, Howard M.  
 Huff, Samuel N. W.  
 Huget, James P.  
 Hughes, Robert W.  
 Hughes, William G.  
 Hull, John T.  
 Hull, Robert J.  
 Humphrey, Watts S.  
 Hunt, Franklin B.  
 Hunt, Reginald S.  
 Hunter, Harold F.  
 Hunter, Norman W.  
 Hunter, Paul B.  
 Huntress, Ernest H.  
 Hurley, John L.  
 Hyland, William L.  
 Hysom, Roscoe H.  
 Icaza, Edward  
 Ilfeld, Max L.  
 Ingals, Fletcher E.  
 Ingalls, Roger O.  
 Inouye, Narumi  
 Insley, Norman  
 Insley, Robert  
 Irwin, William H.  
 Isaacson, Allen  
 Jackson, Arthur L.  
 Jackson, Charles T.  
 Jackson, Dugald C., Jr.  
 Jackson, Edward W.  
 Jackson, Graham H.  
 Jakobson, Irving D.  
 James, William H. L.  
 James, Leonard R.  
 Jefferson, Miss Nellie  
 Jenckes, George A.  
 Jenness, Lucian F.  
 Jenney, Melvin R.  
 Jensen, Andrew C.  
 Jetter, Karl  
 Jewell, Arthur D.  
 Joe, Colin B.  
 Johansen, Elmer L.  
 Johnson, Abbott L., 2d  
 Johnson, Algot J.  
 Johnson, Andrew T.  
 Johnson, Carl A.  
 Johnson, George A.  
 Johnson, George R.  
 Johnson, Philip M.  
 Johnson, Russell C.  
 Johnson, William S.  
 Johnson, William W.  
 Johnston, Allan C.  
 Johnston, Samuel P.  
 Jones, Arthur L.  
 Jones, Miss Catherine D.  
 Jones, Edward V.  
 Jones, Harry E.  
 Jones, Jesse E., Jr.  
 Jones, Manfred M.  
 Jones, Samuel M.  
 Jordan, Lawrence W.  
 Joy, David B.  
 Juel, Odd  
 Junod, Henri P.  
 Justheim, Clarence I.  
 Justice, Frederick E.  
 Kahansky, Irving J.  
 Kahn, Harry J.  
 Kahn, Leo D.  
 Kain, George A., Jr.  
 Kalker, Harry  
 Karalunsky, Alexander  
 Kasahara, Tamio  
 Kasch, Richard M.  
 Kaufman, David  
 Kaufman, Joseph G.  
 Kaufmann, Herbert A.  
 Kawai, Juntaro  
 Kean, Robert H.  
 Keane, Edward C.  
 Kearful, Godfrey G.  
 Keats, John  
 Keck, John M.  
 Keefe, Edward P.  
 Keegan, Joseph P.  
 Keenan, Joseph H.  
 Keevil, Charles S.  
 Keith, Percy C., Jr.  
 Keith, Miss Theodora  
 Kell, Claude O.  
 Kellar, John W.  
 Keller, Anson M.  
 Kelley, J. Sterling  
 Kellogg, Paul M.  
 Kemkemian, Bedros  
 Kendall, Henry M.  
 Kendall, Jackson W.  
 Kendrick, Lawrence W.  
 Kenefick, Richard F., Jr.  
 Kennedy, William F.  
 Kenney, Albert A.  
 Kent, Forrest B.  
 Kent, Harry E.  
 Kenyon, Theodore W.  
 Kepner, Dana E.  
 Kepner, Harold R.  
 Kerr, Horace J.  
 Kerrigan, Ambrose L.  
 Kiaer, Herman S.  
 Kiley, Albert J.  
 Kiley, Leonard F.  
 Kimball, Donald B.  
 Kinch, Frederick A., Jr.  
 King, Allen S.  
 King, George I., Jr.  
 King, Reginald W.  
 Kinghorn, Archibald H., Jr.  
 Kingsley, Kenneth C.  
 Kirchner, Oswald J.  
 Kirkham, Hall  
 Kirkpatrick, Austin N.  
 Kirkpatrick, William, Jr.  
 Kirley, Walter T.  
 Kitchin, Donald W.  
 Kitson, Sydney W.  
 Kittredge, Francis B.  
 Kittredge, Walter W.  
 Kleinberger, Richard C.  
 Klingler, Charles H.  
 Klutzy, Frederick E.  
 Knight, Ashley G.  
 Knight, Chesterton S.  
 Knight, Donald C.  
 Knight, Frank P., Jr.  
 Knight, Montgomery  
 Knoepke, William L.  
 Knox, Merrill B.  
 Knutsen, Ragner M.  
 Koch, Fred C.  
 Kochmann, Everett L.  
 Koehler, Edwin H., Jr.  
 Kohl, William C.  
 Koppen, Otto C.  
 Kowarsky, Frederick E.  
 Kreeger, Armand St. M.  
 Kremp, Robert B.  
 Kroog, Alfred J.  
 Kruse, Albert  
 Kruse, Victor N.  
 Ku, Ku Cheng  
 Kudlich, Hans C.  
 Kuhnle, Finn  
 Kurris, Francis J.  
 Kurth, Henry L. R.

- Kurtz, Francis M.  
 Kurzman, Harold P.  
 Kusnitz, Paul  
 Lack, Howard E.  
 Lacy, Kenneth B.  
 Laird, Leonard B.  
 Lamont, Peter T.  
 Lamoureux, Philip  
 Landis, Henry N.  
 Lane, Benjamin P.  
 Lane, Frank S.  
 Lane, Henry M.  
 Lang, William H.  
 Lange, Forrest F.  
 Lapointe, Alexandre J.  
 Larsen, Otto H.  
 Lassen, Niels  
 Lauder, Miss Mildred  
 Laughlin, Donald S.  
 Lavedan, Pierre F.  
 Lavelle, Kenneth T.  
 Laverty, Francis J.  
 Lawson, Alfred  
 Lawson, Robert H.  
 Lawton, Frank W.  
 Lazo, Frank L.  
 Leander, Carl H.  
 Leander, Carl T.  
 Leathers, Claude W.  
 Ledesma, Ernesto B.  
 Lee, John G.  
 Lee, Richard  
 Lee, Yuan  
 Lee, Ying Fen  
 Lees, Malcolm B.  
 Leewitz, George J.  
 Le Fevre, George H.  
 Le Grand, James  
 Lei, Yue Kim  
 Leisk, Herbert N.  
 Leland, Sanford D., Jr.  
 Lennon, Walter E.  
 Leonori, William H., Jr.  
 Lepicier, Jean  
 Leshure, Willard D.  
 Leslie, John R.  
 Lesser, Louis L.  
 Levensohn, Hyman J.  
 Levenson, Bennett H.  
 Levin, Harold L.  
 Levin, Joseph I.  
 Levine, Israel B.  
 Levy, Henry M.  
 Levy, Will I.  
 Lewis, Bernard  
 Lewis, Howard W.  
 Lewis, Lester C.  
 Lewis, Ralph R.  
 Lewis, Robert F.  
 Lewis, Seth G.  
 Lezberg, Jacob  
 Li, Chung  
 Li, Kuo Chou  
 Li, Yao Huang  
 Lieberg, Erling  
 Lieberman, Maurice B.  
 Liecny, John L.  
 Lier, Arne  
 Lin, Tsu-Kuang  
 Lind, John E.  
 Lindtner, Fred  
 Linley, Norman D.  
 Linn, Emil C.  
 Linsley, Duncan R.  
 Lipp, Morris N.  
 Lippincott, Alpheus C., Jr.  
 Littlefield, Arthur S.  
 Littlefield, Mendum B.  
 Littlefield, Robert M.  
 Littrell, Francis H.  
 Liu, Hsi Ying  
 Livadary, John P.  
 Livermore, Seward W.  
 Lloyd, Leon A.  
 Lo, Ching Fau  
 Lo, Jung An  
 Lockey, Harold H.  
 Lockhart, Howard A.  
 Loesch, Willard G.  
 Logan, John W., Jr.  
 Longfellow, Charles F., Jr.  
 Longmaid, Richard H.  
 Lord, Erskine D.  
 Lord, George F.  
 Lord, Miss Helen C.  
 Loud, Charles E.  
 Lovell, Donald E.  
 Lovejoy, Julian  
 Lovejoy, Lawrence E.  
 Lovejoy, Stanley W.  
 Lu, Wen Siang  
 Lucas, John  
 Ludeke, Herbert C.  
 Ludington, Charles T.  
 Ludlow, George H.  
 Luke, Winthrop E.  
 Lund, Gabriel J.  
 Lund, Joel Y.  
 Lund, Robert L., Jr.  
 Lundberg, Carl J.  
 Lunden, Samuel E.  
 Lurie, Eli  
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 Lusk, Charles H.  
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 Luyties, William H.  
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 Lynch, John P.  
 McAllister, Decker G.  
 McArn, Theodore A.  
 McAuliffe, Albert S.  
 McAvoy, Walter F.  
 McBroom, Earl H.  
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 McCarthy, Edward J.  
 McClellan, Robert N.  
 McClelland, John M.  
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 MacColl, Edward D.  
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 McConnell, Samuel P.  
 McConville, Francis J.  
 McCrea, Walter D.  
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 MacDonald, Edmund J.  
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 McDonough, Clarence J., Jr.  
 McFarland, Julian B.  
 McFarlin, John J.  
 McGee, Harry S.  
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 McGill, Francis J.  
 McGorum, William B.  
 McGrady, Charles T.  
 McGrail, John V.  
 McGrath, Leigh J.  
 McIntire, Clarence J.  
 McIntosh, Charles D.  
 McIntosh, Harold W.  
 McIntyre, Harris B.  
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 McIver, William R.  
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 McKenney, Walter R.  
 Mackenzie, Lachlan  
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 McKinstry, Hugh E.  
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 MacLachlan, Andrew D., Jr.  
 McLean, William H.  
 McLeod, Aubrey S.  
 MacLeod, William D.  
 MacMahon, William K.  
 McMeans, Wayne F.  
 MacMillin, Howard F.  
 MacMullen, Roger B., Jr.  
 McNary, William F.  
 McNaul, James W.  
 MacNeil, Daniel M.  
 McNellis, James S.  
 Macomber, James K.  
 Maconi, Frank  
 Macorra, Fernando de la  
 McQueer, Bert H.  
 McQuillin, Irvin R.  
 McQuiston, Charles F.  
 McSweeney, Edward F., Jr.  
 McWane, William  
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- Maddocks, Austin W.  
 Maffitt, Howard C.  
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 Magee, William L.  
 Mahoney, Harold D.  
 Mahoney, John C.  
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 Mains, Gerald H.  
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 Malloy, Edward P.  
 Maloney, Charles W.  
 Mandel, Louis  
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 Mann, Nelson T.  
 Mann, Raymond F.  
 Manville, Charles W.  
 Mapes, Charles M.  
 Marder, Walter S., Jr.  
 Maria, Alfred J.  
 Mark, Isaac, Jr.  
 Markson, Yolanda D.  
 Marmon, Franklin H.  
 Marovitz, Herman J.  
 Marsh, Donald B.  
 Martin, Edwin D.  
 Martin, Joseph T.  
 Martin, Pete V.  
 Mason, Maurice  
 Massey, Denton  
 Massey, Henry P.  
 Matarese, Anthony  
 Matthews, George K.  
 Matthews, Medwin  
 Matthews, William R.  
 Mattson, John B.  
 Maury, Dabney H., Jr.  
 Maxim, Hiram H.  
 May, Ernest N.  
 May, William E.  
 Maynard, Edward B.  
 Mead, Francis L.  
 Mechling, Eugene B.  
 Meekins, Raymond M.  
 Megata, Shigeyoshi  
 Meier, Jerome  
 Meissner, William E.  
 Meling, Arthur E.  
 Mellen, Romney J.  
 Merriam, Harold W.  
 Merriam, Kenneth G.  
 Merrill, Edgerton  
 Merrill, Edward A.  
 Merrill, Paul C.  
 Merriman, Arthur G.  
 Merzbach, William L.  
 Metcalf, Harold F.  
 Meyer, Philip  
 Middlefaux, Edison B.  
 Midwood, George A., Jr.  
 Miller, Alden W.  
 Miller, Edmund H.  
 Miller, Frank, 2d  
 Miller, Miss Helen S.  
 Miller, Henry C. L., Jr.  
 Miller, John C. C.  
 Miller, Robert A.  
 Miller, Robert B.  
 Miller, Robert F.  
 Miller, Stephen J.  
 Miller, Theodore T.  
 Miller, Wesley B.  
 Milliken, Arnold W.  
 Mills, Bruce M.  
 Miner, Grant L., Jr.  
 Mink, Eldor J.  
 Minot, Francis  
 Minton, David M., Jr.  
 Mire, Paul E.  
 Miskelly, Raymond E.  
 Mitchell, Franklin  
 Mitchell, Robert W.  
 Mitchell, Terry  
 Mitsch, John D.  
 Mobley, Willard M.  
 Mock, Archie L.  
 Moffat, Fraser M., Jr.  
 Moir, James G., Jr.  
 Molinar, John C.  
 Moller, Knud  
 Moller, Victor E.  
 Monasterio, Enrique R.  
 Mongan, Charles E., Jr.  
 Moore, Charles G.  
 Moore, Chester A.  
 Moore, Dudley  
 Moore, Harold D.  
 Moore, Irwin L.  
 Moore, Paul J.  
 Moore, Robert L.  
 Moores, Kenneth A.  
 Moosbrugger, Joseph C.  
 Moran, Bernard H.  
 Moreton, Samuel E., Jr.  
 Morgan, Alva B.  
 Morgan, Francis R.  
 Morgan, George B.  
 Morgan, Jasper  
 Morgan, Myles  
 Morgan, Paul A.  
 Morgan, Walter V.  
 Moriarty, Donald L.  
 Morley, Arthur L.  
 Morrell, Joseph C.  
 Morris, Fearing H.  
 Morris, Joseph A.  
 Morris, Vernon V.  
 Morrison, William D.  
 Morrow, Lorentz A.  
 Morse, Alan L.  
 Morse, Clifton B.  
 Morse, Donald G.  
 Morse, Edward A. S.  
 Morse, Winslow C.  
 Morss, Charles A., Jr.  
 Morton, James R., Jr.  
 Mosher, Harold A.  
 Moskowitz, Harry  
 Moss, Lewis W.  
 Moss crop, Roger G.  
 Mossman, Bruce M.  
 Mueser, William H.  
 Muhlenberg, Charles H., Jr.  
 Muldoon, Robert J.  
 Munce, Marshall G.  
 Munning, August P.  
 Murdoch, Walter B.  
 Murdough, Edwin B.  
 Murley, James E., Jr.  
 Murphy, Henry R.  
 Murphy, John J.  
 Murray, Harold J.  
 Murray, Woodworth N.  
 Musnitsky, Joshua  
 Myer, Charles R., Jr.  
 Myers, Austin S.  
 Myers, Bennett  
 Myers, Charles R., 2d.  
 Myers, Harry M.  
 Naigles, Myer H.  
 Nash, Henry L.  
 Nash, John C.  
 Nash, Paul R.  
 Nason, John B., Jr.  
 Nass, Ragnar  
 Nathan, Gabriel  
 Naughten, Malachy J.  
 Nebolsine, Eugene A.  
 Nebolsine, Rostislaff A.  
 Neiley, Stephen B.  
 Neitlich, George  
 Neitzke, Oscar F.  
 Nelles, Philip A., Jr.  
 Nelson, Alexander  
 Nelson, Christopher B.  
 Nelson, Miss Esther M., C.  
 Nesbitt, George F., Jr.  
 Nesmith, James, 2d.  
 Neumann, Walter B.  
 Nevers, George F.  
 Newhall, Kenneth C.  
 Newhall, Welrose L.  
 Newman, Ansley  
 Newman, Alexander F.  
 Newton, Clinton A.  
 Nichols, John T.  
 Nichols, Sherman E.  
 Nicholson, Aubrey K.  
 Nieh, Kwonkwung B.  
 Niles, Harold H.  
 Nims, Richard L.  
 Nissen, John P.  
 Nissenbaum, Joseph  
 Nixon, Stuart  
 Nock, Herbert K.  
 Noelke, Harry M.  
 Nolen, John, Jr.  
 Norregaard, Hans J.  
 Norris, George N., Jr.  
 Norton, Arthur W.  
 Norton, Clyde A.

- Norton, James R.  
Noveck, George A.  
Nowell, Joseph C., Jr.  
Noyes, Edward W.  
Noyes, William H.  
Oakes, Richard B.  
O'Brien, Paul S.  
O'Connor, Edward J.  
O'Connor, James V.  
Odams, Lester N.  
Oddlafson, August G.  
Officer, Rollin F.  
Olcott, Egbert W.  
Olefsky, Isadore  
Olson, Frederick F.  
Olson, Harry G.  
Olsson, Robert W.  
Onishi, Kenichi  
Oransky, Milton  
Orchard, Thomas M.  
Orlinger, Abraham A.  
Ortiz, Antonio  
Ortiz, Anselmo L.  
Osborn, Charles F.  
Osborne, Alan  
Osborne, Fay H.  
Ossa, Felipe D.  
Otis, John F.  
Otis, William E.  
Ottens, Nicholas  
Ottoneello, Roberto J.  
Owens, George F. B.  
Owens, Grafton R.  
Padgett, Percival, Jr.  
Padilla, Jose A.  
Page, Kenneth B.  
Page, Norman  
Pai, Ming Hsing  
Painter, Chester R.  
Palasiri, Sutra  
Palmer, Earl C.  
Papov, Irving  
Park, Robert H.  
Parker, Allen A.  
Parker, Charles F.  
Parker, Milton E.  
Parrott, Stephen V.  
Parsons, James S.  
Passell, Solomon M.  
Patisteas, Michael J.  
Patten, David L.  
Patten, Raymond E.  
Patterson, Robert  
Patton, Norman F.  
Patty, Joseph C.  
Pauli, Ernest  
Paulsen, Reidar  
Payne, Harold J.  
Payson, Philip P.  
Peabody, Elliot G.  
Peabody, Octavus  
Peabody, William A.  
Peale, William B.  
Pearce, Gerald C.  
Pearlstein, Max B.  
Pearson, Ernest A.  
Pearson, Harry L.  
Pearson, Philip R.  
Peck, Irving K.  
Peene, Reginald H.  
Pei, Kuan Hsi  
Peirce, John T.  
Peirson, Hugh F.  
Pelkus, Leo C.  
Penna, Antonio T.  
Pennell, Edwin G.  
Pennypacker, James A.  
Perepelkin, Methodi E.  
Perine, Keble  
Perkins, Alfred M.  
Perkins, Clarence W.  
Perkins, Eaton H.  
Perkins, Elliott R.  
Perkins, John R., Jr.  
Perkins, MacDudley  
Perkins, Myles S.  
Perkins, Oscar L.  
Perkins, William F.  
Perlstein, Harry  
Perra, Henry R.  
Perry, Alfred J.  
Perry, Florence M.  
Perry, Foster N.  
Perry, William M.  
Petermann, Fred K.  
Peters, Miss Constance E.  
Peterson, Alfred W.  
Peterson, Martin S.  
Pettengill, Rodney G.  
Pew, Arthur E., Jr.  
Phaneuf, Victor S.  
Phelps, Donald S.  
Phelps, Roger E.  
Phillips, Charles L.  
Phillips, Paul M.  
Phinney, Hugh M.  
Pickett, Earle R.  
Pieper, George F., Jr.  
Pierce, Albert H.  
Pierce, Edward G.  
Pierce, Julius H.  
Pierce, Miss Marjorie  
Pike, Herman F.  
Pike, Moses B.  
Pinkerton, Henry  
Piza Geijel, José  
Plaisted, Frank H.  
Plaza, Herman P.  
Plimpton, John A.  
Plummer, William B.  
Pollock, George W.  
Pollock, Robert B.  
Pomeroy, Eltweed, Jr.  
Pomykala, Edmund S.  
Ponce, Arturo, Jr.  
Poole, Harmon A.  
Poole, John W., 3d.  
Poole, Richard C.  
Pope, Kennedy  
Popereff, Alexander P.  
Poppe, Thomas J. W.  
Porter, Lloyd J.  
Post, Foster M.  
Pote, Kenneth E.  
Potter, George W.  
Potter, Wilson, Jr.  
Potter, Winthrop F.  
Povah, Albert E.  
Powell, Albert P.  
Powell, Bryan B.  
Powell, Philip W.  
Powers, Leslie W.  
Powers, Lewis J., Jr.  
Powers, Thomas L.  
Prasad, Bindignavle R.  
Pratt, Fearing  
Pratt, Hazen C.  
Pratt, Kenneth H.  
Preloran, Luciano A.  
Presbrey, Raymond L.  
Prescott, Robert  
Preston, Joseph K.  
Preston, William H.  
Price, Leslie D.  
Price, Ralph H.  
Proctor, Bernard E.  
Proctor, Thomas W.  
Prout, George R.  
Purcell, Edwin J.  
Purinton, Willard B.  
Purnell, Lee J.  
Purves, Dale  
Putnam, Gerald  
Putnam, Palmer C.  
Pyle, Albert J.  
Quarles, William W., Jr.  
Quealy, Mahlon K.  
Quirin, Eugene L.  
Quiros, Teodorico  
Radasch, Arthur H.  
Radcliffe, Oswald T.  
Rader, George  
Radin, Aaron  
Raffety, John S.  
Ragatz, Edward G.  
Ramsay, George D.  
Ramsay, Harry M.  
Ramsey, Robert P.  
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Randall, Joseph H.  
Randlett, Norman P.  
Randolph, Donald W.  
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Ranen, Albert H.  
Rankin, Rodney C.  
Ranlett, Frederick J., Jr.  
Raphael, Harry R.  
Raphael, Rosimond M.  
Rapp, William G.  
Rathbone, Clifford K.  
Ravecca, Francisco, Jr.  
Raymond, Fairfield E.



- Raymond, Fred L.  
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 Read, Eliphalet N.  
 Ready, William C.  
 Redway, Albert S.  
 Reed, Charles A.  
 Reed, Charles H.  
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 Reed, Parker C.  
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 Reinhard, Herbert W.  
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 Reinus, Arthur I.  
 Reno, Robert W.  
 Restrepo, Luis F.  
 Rettew, Harvey F.  
 Reynolds, Frank P.  
 Reynolds, Stanley C.  
 Rhodes, Robert D.  
 Rice, Percival S.  
 Rich, William T., Jr.  
 Richards, Charles W.  
 Richards, Clift R., Jr.  
 Richards, Edwin R.  
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 Rickers, Frank O.  
 Ridgway, Raymond R.  
 Riegel, Theodore  
 Riley, Philip L.  
 Riley, William A.  
 Rimmer, Chester A.  
 Ring, Vincent D. P.  
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 Robb, Russell, Jr.  
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 Robbins, Keith W.  
 Roberson, William C.  
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 Robinson, Carlton A.  
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 Robinson, Nathaniel O.  
 Robinson, Preston  
 Roche, Charles E.  
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 Rodriguez, Antonio H.  
 Rogers, Arthur F.  
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 Rogers, John W.  
 Roll, Charles S.  
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 Rolle, Edward  
 Rowan, Kenneth J.  
 Ronkanen, Vaino A.  
 Rood, Francis A.  
 Rose, Edwin L.  
 Rose, Melvin C.  
 Rose, Scott H.  
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 Ross, Edward T., Jr.  
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 Ross, Mott B.  
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 Roth, William T.  
 Rounds, Thomas E., Jr.  
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 Row, Clarence W.  
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 Ruttenberg, Samuel  
 Ruud, Arnold C.  
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 Sadow, Abraham J.  
 St. Laurent, Raymond A.  
 Sallaway, John E.  
 Sammet, Wendell P.  
 Sanborn, Earle L.  
 Sanders, Leslie B., Jr.  
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 Sanderson, Nathan H., Jr.  
 Sandiford, Raymond B.  
 Sands, John W.  
 Sargent, Albert L.  
 Sarros, James D.  
 Satterlee, Henry Y.  
 Saunders, Edward E.  
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 Savage, Russell H.  
 Sawamura, Sukesaku  
 Sawyer, Dana D.  
 Sayre, Daniel C.  
 Scarlett, John A.  
 Schaefer, Joseph J., Jr.  
 Schaefer, William J.  
 Schatz, Edwin C.  
 Schein, Sumner  
 Schell, Charles F.  
 Schenberg, Samuel  
 Schimmelpfennig, William H.  
 Schley, Henry M.  
 Schlimgen, Lucian G.  
 Schmitt, Herman L.  
 Schmitz, Edwin H.  
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 Schock, Edson I.  
 Schoenherr, Ernest K.  
 Scholtz, Joseph H., Jr.  
 Schriro, Elias S.  
 Schulman, William  
 Schumacker, George P., Jr.  
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 Schwamb, Edward B.  
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 Schwarz, Edward R.  
 Scofield, William D.  
 Scott, Emmett J., Jr.  
 Scott, James H., Jr.  
 Scott, John A.  
 Scott, Palmer  
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 Seamos, Steve J.  
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 Sears, Francis W.  
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 Seddon, John  
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 Sehagian, Elias K.  
 Seitz, Wilford  
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 Seymour, George W.  
 Shakespeare, Monroe C.  
 Shampanier, Manuel  
 Sharlach, Samuel  
 Sharples, Warren G.  
 Shattuck, Carl W.  
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 Shaw, Alfred E.  
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 Shaw, Ralph M., Jr.  
 Shaw, Robert P.  
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 Nichols, W. G.  
 Noble, Arthur G.  
 Owens, Michael F.

Pierson, Norris E.  
 Rundbaken, Frederick J.  
 Ryan, Stephen J.  
 Smith, William D.  
 Spates, Thomas G.  
 Udy, Isaac  
 Whittemore, Harris, Jr.  
 Williams, Bertram "In  
 Memory of"

## LIST OF CONTRACTORS

The Aberthaw Construction Co., 27 School Street, Boston, Mass.  
 Albany Felt Co., Albany, N. Y.  
 American Bosch Magneto Corp., Springfield, Mass.  
 American Car and Foundry Co., 165 Broadway, New York City.  
 American Chain Co., Inc., Bridgeport, Conn.  
 American Cotton Oil Co., 65 Broadway, New York City.  
 American Glue Co., 121 Beverly Street, Boston, Mass.  
 American International Corp., 120 Broadway, New York City.  
 American Optical Co., Southbridge, Mass.  
 American Printing Co., Fall River, Mass.  
 American Radiator Co., 1807 Elmwood Avenue, Buffalo, N. Y.  
 American Radio and Research Corp., Medford Hillside, Mass.  
 American Steel Foundries, McCormick Building, Chicago, Ill.  
 American Tel. and Tel. Co., 195 Broadway, New York City.  
 American Woolen Co., 245 State Street, Boston, Mass.  
 The Amos Bird Co., 72 South Market Street, Boston, Mass.  
 Angier Mills, Framingham, Mass.  
 The Angus Co., Ltd., P. O. Box 5173, Boston, Mass.  
 M. N. Arnold Shoe Co., North Abington, Mass.  
 Arnold Print Works, North Adams, Mass.  
 Avery Chemical Co., 88 Broad Street, Boston, Mass.  
 The Babcock & Wilcox Co., 85 Liberty Street, New York City.  
 E. B. Badger & Sons Co., 75 Pitts Street, Boston, Mass.  
 Walter Baker & Co., Ltd., Dorchester, Mass.  
 The Beckett Paper Co., Hamilton, Ohio.  
 Bemis Brothers Bag Co., 40 Central Street, Boston, Mass.  
 Berkshire Cotton Manufacturing Co., Adams, Mass.  
 Bethlehem Shipbuilding Corp., Ltd., South Bethlehem, Pa.  
 The Blanchard Machine Co., 64 State Street, Cambridge, Mass.  
 Boott Mills, 79 Milk Street, Boston, Mass.  
 Borden & Remington Co., Fall River, Mass.  
 The Richard Borden Manufacturing Co., Fall River, Mass.  
 Boston Insulated Wire and Cable Co., Dorchester, Mass.  
 John S. Boyd Co., North Adams, Mass.  
 Brown Co., Berlin, N. H.  
 Buffalo Bolt Co., Buffalo, N. Y.  
 Buffalo Foundry and Machine Co., Buffalo, N. Y.  
 Calumet & Hecla Mining Co., 12 Ashburton Place, Boston, Mass.  
 Chandler Motor Car Co., 131st Street, Cleveland, Ohio.  
 Chase & Sanborn, 200 High Street, Boston, Mass.  
 The Benjamin Chase Co., Derry Village, N. H.  
 Cheney Brothers, South Manchester, Conn.  
 Chicago-Cleveland Car Roofing Co., 535 Railway Exchange Building, Chicago, Ill.  
 Chile Exploration Co., 120 Broadway, New York City.  
 Churchill & Alden Co., Campello, Mass.  
 The Cincinnati Milling Machine Co., Cincinnati, Ohio.  
 Commonwealth Shoe and Leather Co., 72 Lincoln Street, Boston, Mass.

Corrugated Bar Co., Mutual Life Building, Buffalo, N. Y.  
Henry E. Cowdry, Fitchburg, Mass.  
Crane Co., 836 South Michigan Avenue, Chicago, Ill.  
The Crosby Steam Gage & Valve Co., 40 Central Street, Boston, Mass.  
William L. Curry, Curry Building, Pittsburgh, Pa.  
Dexter Yarn Co., Pawtucket, R. I.  
Diamond Shoe Co., 196 Church Street, New York City.  
D. M. Dillon Steam Boiler Works, Fitchburg, Mass.  
Henry Disston & Sons, Inc., Tacony, Philadelphia, Pa.  
The Dolge Felt Co., Oxford, Mass.  
Eastern Manufacturing Co., Bangor, Maine.  
Economy Fuse and Manufacturing Co., 328 West Kinzie Street, Chicago, Ill.  
The Edison Electric Illuminating Co., 39 Boylston Street, Boston, Mass.  
Ehret Magnesia Manufacturing Co., Valley Forge, Pa.  
Electric Steel Foundry Co., Portland, Oregon.  
Employers' Liability Assurance Corp., 33 Broad Street, Boston, Mass.  
Fall River Electric Co., Fall River, Mass.  
Farrington Manufacturing Co., Jamaica Plain, Mass.  
The Ferro Concrete Construction Co., Cincinnati, Ohio.  
Firestone Tire and Rubber Co., Akron, Ohio.  
Fisk Rubber Co., Chicopee Falls, Mass.  
The Forbes Lithograph Manufacturing Co., Chelsea, Mass.  
Fort Pitt Steel Casting Co., McKeesport, Pa.  
Fox River Paper Co., Appleton, Wis.  
French Oil Mill Machinery Co., Piqua, Ohio.  
General Chemical Co., 25 Broad Street, New York, N. Y.  
General Electric Co., Schenectady, N. Y.  
The General Tire and Rubber Co., Akron, Ohio.  
The Goodyear Tire and Rubber Co., Akron, Ohio.  
Granite Mills, Fall River, Mass.  
Greenfield Tap and Die Corp., Greenfield, Mass.  
Haskell & Barker Car Co., Inc., 507 Railway Exchange Building, Chicago, Ill.  
Hewitt Rubber Co., Buffalo, N. Y.  
The Housing Company, 248 Boylston Street, Boston, Mass.  
F. C. Huyck & Sons, Albany, N. Y.  
Independent Foundry Co., Portland, Oregon.  
International Engineering Works, Inc., Framingham, Mass.  
International Harvester Co., 606 South Michigan Avenue, Chicago, Ill.  
International Process Co., Indianapolis, Ind.  
The Jarecki Manufacturing Co., Erie, Pa.  
Kalmus Comstock & Wescott, Inc., 110 Brookline Avenue, Boston.  
George E. Keith Co., Campello, Mass.  
Kimberly-Clark Co., Neenah, Wis.  
E. C. Klipstein & Sons Co., Greenwich Street, New York City.  
Lackawanna Steel Co., Lackawanna, N. Y.  
Lewis Manufacturing Co., Walpole, Mass.  
Liquid Carbonic Co., Chicago, Ill.  
Arthur D. Little, Inc., 30 Charles River Road, Cambridge, Mass.  
Lockwood, Greene & Co., 245 State Street, Boston, Mass.  
Los Angeles Soap Co., 633 East First Street, Los Angeles, Calif.  
Ludlow Manufacturing Associates, 111 Devonshire Street, Boston.  
Lumen Bearing Co., Buffalo, N. Y.  
Lunkenheimer Co., Cincinnati, Ohio.  
The Macallen Co., Macallen and Foundry Streets, Boston, Mass.  
W. H. McElwain Co., 354 Congress Street, Boston, Mass.  
George McQuestion Co., 27 Kilby Street, Boston, Mass.  
Manhasset Manufacturing Co., Providence, R. I.  
Manning, Maxwell & Moore, Inc., 119 West 40th Street, New York, N. Y.  
Manufacturers' Machine Co., North Andover, Mass.  
Massachusetts Breweries Co., 36 Hawley Street, Boston, Mass.  
Massachusetts Gas Co., 111 Devonshire Street, Boston, Mass.  
Massasoit Manufacturing Co., Fall River, Mass.  
The G. H. Mead Co., City National Bank Building, Dayton, Ohio.  
M. H. Merriam & Co., Lexington, Mass.



Merrimac Chemical Co., 148 State Street, Boston, Mass.  
 H. A. Metz and Co., Inc., 128 Oliver Street, Boston, Mass.  
 Miami Copper Co., 61 Broadway, New York City.  
 Middlesex Bleach, Dye and Print Works, Somerville, Mass.  
 The Millville Manufacturing Co., Millville, N. J.  
 Miniature Incandescent Lamp Corp., 95 Eighth Avenue, Newark, N. J..  
 Morden Frog and Crossing Works, 1873 Continental and Commercial Bank Building,  
 Chicago Ill..  
 Multibestos Co., Walpole, Mass.  
 Munroe Felt and Paper Co., 79 Summer Street, Boston, Mass.  
 Nashua Manufacturing Co., 82 Devonshire Street, Boston, Mass.  
 National Equipment Co., Springfield, Mass.  
 National Machine and Tool Co., 253 A Street, South Boston, Mass.  
 Naumkeag Steam Cotton Co., Salem, Mass.  
 New England Confectionery Co., 253 Summer Street, Boston, Mass.  
 New York Shipbuilding Corp., Camden, N. J.  
 Niagara Falls Power Co., Niagara Falls, N. Y.  
 Niagara, Lockport and Ontario Power Co., Marine Bank Building, Buffalo, N. Y.  
 Nicholson File Co., Providence, R. I.  
 The Otis Steel Co., Cleveland, Ohio.  
 Parkhill Manufacturing Co., Fitchburg, Mass.  
 Parks-Cramer Co., 1102 Old South Building, Boston, Mass.  
 Patchogue-Plymouth Mills Corp., 1115 Broadway, New York.  
 Perry Iron Co., Care of Pickands Mather & Co., Cleveland.  
 Charles Pfizer & Co., Inc., 11 Bartlett Street, New York City.  
 The Pierce Arrow Motor Car Co., 1695 Elmwood Avenue, Buffalo, N. Y.  
 The Plymouth Rubber Co., Canton, Mass.  
 Reading Rubber Manufacturing Co., Reading, Mass.  
 Rhode Island Tool Co., Providence, R. I.  
 Roessler & Hasslacher Chemical Co., Perth Amboy, N. J.  
 Saco-Lowell Shops, 77 Franklin Street, Boston, Mass.  
 Samson Cordage Works, 88 Broad St., Boston, Mass.  
 Sanford Mills, Reading, Mass.  
 Sayles Finishing Plants, Saylesville, R. I.  
 Thomas E. Sears Inc., 10 High Street, Boston, Mass.  
 Simplex Wire and Cable Co., 201 Devonshire Street, Boston.  
 Smith & Dove Manufacturing Co., Andover, Mass.  
 The Snead & Co. Iron Works, Jersey City, N. J.  
 The Southern Cotton Oil Co., 120 Broadway, New York.  
 Stafford Mills, Fall River, Mass.  
 Stanley Works, New Britain, Conn.  
 M. T. Stevens and Sons Co., North Andover, Mass.  
 Stillwater Worsted Mills, Harrisville, R. I.  
 Stone & Webster, 147 Milk Street, Boston, Mass.  
 Stone & Webster (subsidiaries), 147 Milk Street, Boston, Mass.  
 Sullivan Machinery Co., Claremont, N. H.  
 Sun Company, 1428 South Penn Square, Philadelphia, Pa.  
 Sun Shipbuilding Co., Chester, Pa.  
 Tailby-Nason Company, 364-372 Congress Street, Boston, Mass.  
 Textile World Journal, 144 Congress Street, Boston, Mass.  
 Thilmay Pulp and Paper Co., Kaukauna, Wis.  
 Tide Water Oil Co., 11 Broadway, New York City  
 Timken-Detroit Axle Co., 136 Clark Avenue, Detroit, Mich.  
 Todd Shipyards Corp., Care of Robbins Dry Dock and Repair Co., Erie Basin, Brooklyn,  
 N. Y.  
 Toledo Furnace Co., Care of Pickands Mather & Co., Cleveland, Ohio.  
 Tropical Fruit Juice Co., 730 North Franklin Street, Chicago, Ill.  
 H. G. Trout Co., 226 Ohio Street, Buffalo, N. Y.  
 The Tube Winding Co., Cambridge, Mass.  
 Nathaniel Tufts Meter Works, 455 Commercial Street, Boston, Mass.  
 Underwriters' Bureau of New England, 141 Milk Street, Boston, Mass.  
 Union Carbide and Carbon Corp., 42d Street Building, New York City.  
 Union Paste Co., 293 Congress Street, Boston, Mass.  
 United Drug Co., Greenleaf and Leon Streets, Boston, Mass.

United Furnace Co., Care of Pickands Mather & Co., Cleveland, Ohio.  
United Shoe Machinery Co., 205 Lincoln Street, Boston, Mass.  
U. S. Color and Chemical Co., Inc., 93 Broad Street, Boston, Mass.  
U. S. Rubber Co., 1790 Broadway, New York City.  
U. S. Steel Corp., 51 Newark Street, Hoboken, N. J.  
U. S. Smelting, Refining and Mining Co., 55 Congress Street, Boston, Mass.  
The Utah Copper Co., 25 Broad Street, New York City.  
The Viscoe Co., Marcus Hook, Pa.  
Wanskuck Co., Providence, R. I.  
The Warren Soap Manufacturing Co., 77 Summer Street, Boston, Mass.  
Washington Iron Works, Seattle Boulevard and Norman Streets, Seattle, Wash.  
West Virginia Pulp and Paper Co., 200 Fifth Avenue, New York City.  
Western Union Telegraph Co., 175 Congress Street, Boston, Mass.  
Westinghouse Electric and Manufacturing Co., 165 Broadway, New York City.  
Whiting Foundry Equipment Co., Harvey, Ill.  
William Whitman Co., Inc., 78 Chauncy Street, Boston, Mass.  
Willamette Steel and Iron Co., Portland, Oregon.  
Winship, Boit & Co., Wakefield, Mass.  
Worthington Pump and Machinery Corp., 115 Broadway, N. Y.  
Wright Manufacturing Co., Lawrence, Mass.  
The Youngstown Sheet and Tube Co., Youngstown, Ohio.

## SUBSCRIPTIONS BY CLASSES

<i>Class</i>	<i>Subscribers</i>	<i>Per Cent</i>	<i>Amount</i>	<i>Class</i>	<i>Subscribers</i>	<i>Per Cent</i>	<i>Amount</i>
'68	9	64	\$3,855.00	'09	193	45	\$19,120.50
'69	5	36	760.00	'10	187	44	20,652.00
'70	14	64	5,622.00	'11	274	63	27,741.10
'71	14	52	9,847.50	'12	210	49	27,569.00
'72	16	76	2,628.25	'13	233	52	25,441.00
'73	39	100	60,025.00	'14	232	49	27,823.50
'74	43	86	13,135.00	'15	263	45	22,870.00
'75	41	55	10,510.00	'16	276	51	23,531.00
'76	27	42	33,205.00	'17	378	59	38,391.00
'77	65	99	4,816.00	'18	278	45	19,583.50
'78	37	100	8,280.00	'19	253	45	20,476.50
'79	31	46	8,000.00		6,680		\$2,443,711.03
'80	11	29	3,880.00	Unclassified,			847.04
'81	23	34	23,134.12	Total Alumni,			\$2,444,558.07
'82	31	57	12,421.00				
'83	27	44	5,360.00				
'84	60	73	517,891.00				
'85	56	57	48,600.38				
'86	70	50	12,441.00				
'87	84	51	27,953.00				
'88	102	54	109,386.00				
'89	93	51	39,941.00				
'90	131	67	243,103.00				
'91	97	49	42,275.00				
'92	127	65	40,859.00				
'93	151	52	210,746.00				
'94	130	52	63,293.00				
'95	134	51	46,006.00				
'96	220	63	57,281.00				
'97	156	52	100,781.00				
'98	156	43	50,354.00				
'99	125	40	23,449.00				
'00	146	48	28,285.50				
'01	136	42	85,827.65				
'02	183	57	41,571.00				
'03	141	41	26,688.50				
'04	171	44	25,198.00				
'05	233	49	35,713.33				
'06	208	45	39,932.00				
'07	174	43	29,529.20				
'08	186	43	17,928.50				

UNDERGRADUATES							
<i>Class</i>	<i>Subscribers</i>	<i>Per Cent</i>	<i>Amount</i>				
1920	391	71	\$23,499.00				
1921	627	80	33,045.00				
1922	838	80	37,574.00				
1923	596	85	24,768.00				
Organizations, 10,			1,495.00				
	2,462		\$120,381.00				

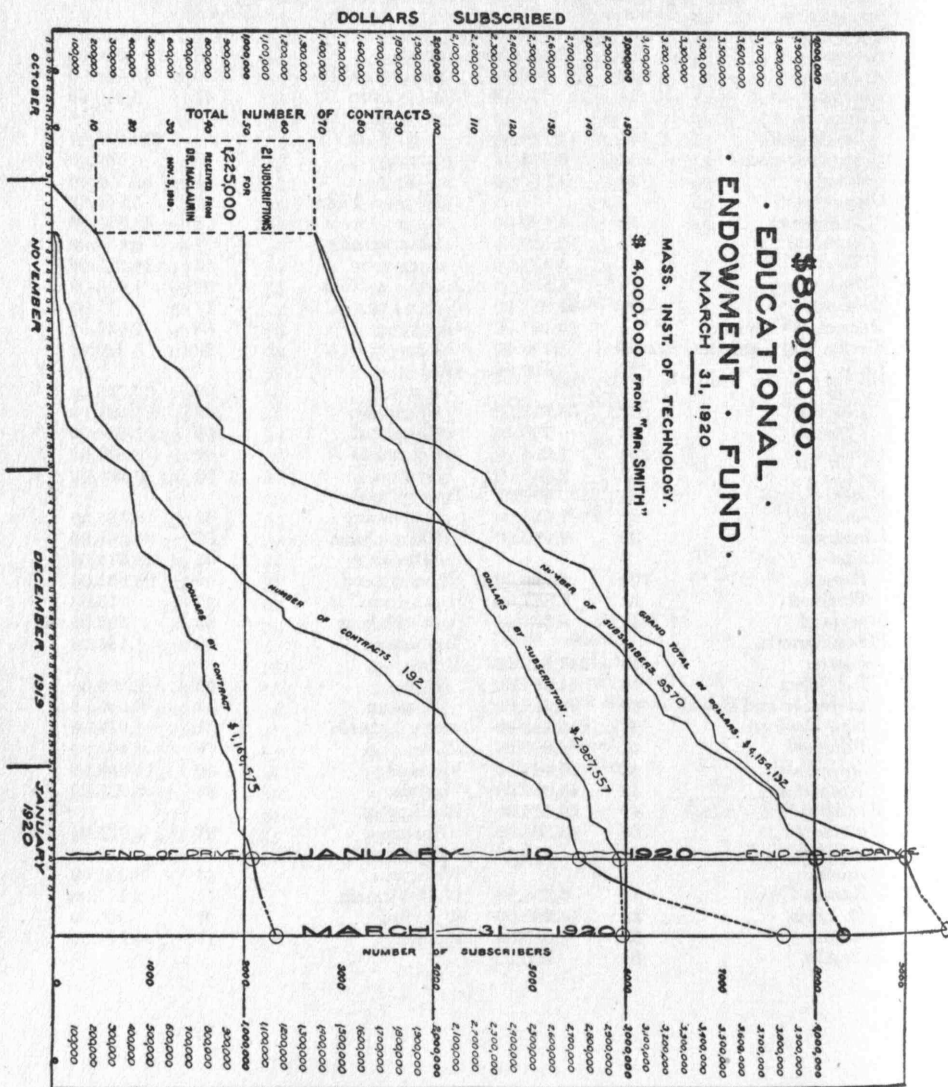
  

	<i>Sub-</i>	<i>scrib-</i>	<i>ers</i>	<i>Amount</i>
U. S. A. School Mili-				
tary Aeronautics	39			\$675.00
U. S. Naval Aviation				
Detachment	33			1,088.50
Faculty (not alumni)	13			3,260.00
Corporation				
(Not alumni)	14			72,520.00
Other Non-Tech	275			260,722.00
Companies	54			34,445.00
	9,570			\$2,937,649.57
Contracts,				1,216,575.00
Total,				\$4,154,224.57

## REGIONAL REPORT (Alumni only)

<i>District</i>	<i>Per Cent Subscrib- ing</i>	<i>Amount</i>	<i>District</i>	<i>Per Cent Subscrib- ing</i>	<i>Amount</i>
Alabama	51	\$2,580.00	Nevada	8	\$10.00
Arizona	53	840.00	New Hampshire	50	13,156.00
Arkansas	14	170.00	New Mexico	41	5,510.00
California			New York		
Los Angeles	41	14,710.00	New York City	64	649,003.00
San Francisco	52	6,974.00	Albany	46	5,508.00
Colorado	33	2,737.00	Buffalo	65	62,195.00
Connecticut			Niagara Falls	97	5,965.00
Bridgeport	49	4,190.00	Rochester	72	42,895.00
Hartford	69	19,138.00	Schenectady	77	9,887.00
New Haven	78	9,477.00	Syracuse	43	14,913.00
Waterbury	74	4,930.00	North Carolina	30	1,450.00
Delaware	91	435,385.00	North Dakota	17	10.00
District of Columbia	51	10,121.00	Oklahoma	88	1,080.00
Florida and Georgia	47	5,150.00	Oregon	69	5,810.00
Idaho	27	400.00	Ohio		
Illinois			Akron	90	38,760.00
Chicago	56	54,975.00	Cincinnati	59	27,931.00
Urbana	42	790.00	Cleveland	69	42,684.00
Indiana	50	7,295.00	Columbus	62	1,807.00
Iowa	37	2,640.00	Dayton	73	6,203.00
Kansas	58	970.00	Pennsylvania		
Kentucky	22	1,785.00	Harrisburg	49	3,585.00
Louisiana	32	2,070.00	Philadelphia	53	30,583.00
Maine			Pittsburg	64	29,674.00
Bangor	100	5,789.00	Rhode Island	69	28,332.00
Portland	32	7,827.00	South Carolina	38	715.00
Maryland	46	9,385.00	South Dakota	33	585.00
Massachusetts			Tennessee	40	1,145.00
Boston	40	547,529.00	Texas		
Fall River	46	24,954.00	Dallas	44	2,300.00
Lawrence and Lowell	39	28,292.00	Houston	52	2,900.00
New Bedford	57	6,153.00	San Antonio	51	1,617.00
Pittsfield	43	3,621.00	Utah	70	4,430.00
Springfield	42	10,444.00	Vermont	50	11,682.00
Worcester	42	44,337.00	Virginia	47	3,958.00
Michigan	47	26,516.00	Washington		
Minnesota	68	13,390.00	Seattle	82	4,925.00
Mississippi	33	275.00	Spokane	50	710.00
Missouri			Wisconsin	54	8,982.00
Kansas City	67	6,815.00	West Virginia	47	2,175.00
St. Louis	54	16,230.00	Wyoming	27	900.00
Montana	38	7,000.00	Foreign	16	24,179.00
Nebraska	30	520.00			





## STATISTICS OF CONTRIBUTORS

The following list gives the number of donors who pledged certain amounts:

1	\$500,000	28	\$2,500
1	200,000	33	2,000 to 2,500
1	110,000	27	1,000 to 1,500
1	60,185	198	1,000
1	55,000	11	750 to 1,000
2	50,000	41	500 to 750
1	30,000	317	500
11	25,000	24	400 to 500
1	20,000	284	300 to 400
12	10,000	276	250
1	11,270	339	200
1	7,500 to 10,000	412	150
38	5,000	1,843	100 to 125
18	2,500 to 5,000	5,647	Less than 100

STATEMENT OF EXPENSE INCURRED BY ALUMNI COMMITTEE  
ON MASSACHUSETTS INSTITUTE OF TECHNOLOGY  
EDUCATIONAL ENDOWMENT FUND

October 6, 1919 to March 31, 1920

Telephone and telegraph, trucking, etc.....	\$2,486.32
Postage.....	3,936.00
Printing.....	6,955.79
Publicity.....	3,096.61
Photographs and badges.....	537.23
Dinners.....	1,292.13
Office supplies and equipment.....	1,261.19
Travelling and personal expenses.....	4,041.26
Salaries.....	5,710.00
Office and clerical wages.....	4,020.52
Expense at Tech Club, New York.....	977.63
Expense at Tech Club, Philadelphia.....	446.91
Total.....	<u>\$34,797.59</u>

TOTAL EXPENSE OF EDUCATIONAL ENDOWMENT FUND DRIVE

Alumni Committee (above).....	\$34,797.59
New York office expense.....	14,789.38
Other travelling and personal expenses of Corporation Committee.....	<u>1,956.82</u>
Total.....	<u>\$51,543.79</u>

## THE ALL-TECHNOLOGY REUNION

The fourth reunion to be a working one — dates and plans

EVERY member of the Alumni Association by now will have received full details of the fourth All-Technology Reunion to be held at the Institute on Monday, Tuesday, and Wednesday on June 21, 22 and 23. The decision was arrived at, committees chosen, and plans made too late for the REVIEW to give the Reunion any useful publicity. The July number, however, will have of course a full account of the gathering with as many photographs as these days of high costs make possible.

In the first reaction from the general grief and depression over the death of our late president, there was a natural feeling that a reunion this year was inadvisable. No one would feel like planning or attending a celebration like that of 1916, such as had been planned as a celebration of the successful completion of the Endowment Fund campaign, and the feeling was for a time marked, that better no reunion than an unsuccessful one.

But as time wore on it became evident to the majority, particularly those from outside the immediate influence of Boston and Cambridge, that a get-together of Technology men was necessary now as never before; that the Institute faced many serious problems needing discussion and decision by the general body of alumni, that the new spirit engendered by the fund campaign must not be allowed to die out for lack of stimulus and ammunition, that a break in the tradition of the five year reunion would be a serious thing.

It was further urged that the alumni should have a chance to see the new plant of the Institute in full operation as a successful going concern, that they should have a chance to pay fitting tribute to the memory of Dr. Maclaurin and of those men who died during the war, as well as to meet once more in a renewal of old friendships.

For these reasons the Alumni Council voted to hold the reunion this year, but to make it not merely an occasion for a good time, picnics, dinners and stunts, but a working convention to consider Technology's present problems and future opportunities, and to deal with some of the questions suggested at the Philadelphia meeting of the Technology Clubs Associated.

There will be probably a great meeting for discussion, with the chief problems of interest presented by the authorities on those subjects; a formal memorial meeting to Dr. Maclaurin and to those men who gave up their lives in the war; a series of department luncheons in which the important questions affecting each department's growth and activities can be presented by the head of each course to its graduates; and a formal banquet with speakers of international reputation. The third day will be given up to an all-day excursion and picnic at Plymouth, particularly appropriate and interesting this year of the Pilgrim Tercentenary, for the usual sports and good times.



The new alumni directory and the War Book will undoubtedly be published in time for the reunion; the latter particularly will bring home to every one the splendid part all Technology played in the late war. This reunion is an opportunity for Tech men to show their loyalty and the seriousness of their regard for their Alma Mater at a time when she never needed it more. In the effective words of Professor Prescott's first notice to the alumni:

"This reunion should prove to be an occasion of great significance and importance in the life of the Institute, combining, as it will, opportunity to pay our deep respect and gratitude to the memory of the great leader we have so recently lost, to give our cordial support and constructive suggestions for the future work of Alma Mater, and to renew the bonds of friendly association and solidarity of purpose that have been so effective in the past in building up Technology's reputation and prestige.

"You are now called upon to use your influence with your class and local organizations, to secure for this meeting an enthusiastic attendance and to stimulate as fully as possible such helpful criticism and support as we all feel to be necessary if the great ideals of the Institute and its place in the educational fabric of America are to be properly maintained. You know the ideals of Technology, and your aid in stirring up interest in this reunion will be of immeasurable value at this time."

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## AERONAUTICS

THE "wind tunnel" of the Massachusetts Institute of Technology, which has played an important part in airplane experiments, has been leased for another year by the war department. Hundreds of experiments necessary for the advancement of flying, which ordinarily would have been made by aviators at the risk of their lives, are conducted in this wind tunnel. So successful has the work been that after conducting experiments upon a model, built to one-twenty-fourth the actual size of the plane, the engineers are able to state with scientific exactness just what a new plane will do. This wind tunnel is the first American effort for scientifically determining the actions of airplanes under varying conditions without danger to human life.

## TECHNOLOGY CLUBS ASSOCIATED

### Philadelphia Meeting — Dr. Hollis Godfrey's Scheme of Industrial and Educational Co-operation

THE first meeting of the Tech Clubs Associated since the Cleveland convention of the spring of 1917 met on March 26 and 27 at the Drexel Institute, Philadelphia, on the invitation of Dr. Hollis Godfrey, '98, president of Drexel and also of the Technology Clubs Associated.

The meeting had, as usual, a specific problem to discuss concerning Technology, but it was unique in that Dr. Godfrey had invited from outside representatives of both industry and education, both technical and academic, to discuss a problem in which Technology is greatly concerned, the increasing need of management men in industry and what the colleges can do to supply that need in co-operation with industry, or, to use Dr. Godfrey's words, to plan the writing of joint specifications for both colleges and industries for the speedier and more efficient production of trained management men in industry.

The meeting opened at 10.30 on Friday morning, March 26, and at Drexel the Technology men attending as delegates found that Dr. Godfrey's staff was most hospitable and efficient in conducting registration, securing hotel room and generally making them feel at home. Dr. Godfrey and his family, his son especially, spared no effort to make every one comfortable.

The plan of the meeting, as announced beforehand by Dr. Godfrey, was that the first session should be a joint one of Technology Clubs Associated and the other representatives from schools and industry, on Friday morning. On Friday afternoon the Technology Clubs Associated was to have its separate session, while the other delegates met in sections appropriate to their business to discuss further the general problem of co-operation between college and industry. On Saturday morning another joint session was to finish the business of the convention, after which, through the courtesy of Mr. Brush, the delegates were to have the opportunity to inspect Hog Island. A promised launching could not be held, it was learned, because the tide did not serve.

At 10.30 the convention was called to order, welcomed by Dr. Godfrey to Drexel and by Mayor Moore to the city of Philadelphia. The Mayor in his brief address emphasized the growing need for technically trained men, especially in municipal and governmental work where men are needed not only to do a job well but to know what jobs are worth doing at all, and so effect great economies in administration. And as people since the war are waking up to the importance of technical men and their scarcity, a convention such as this could not but do great good in spreading the gospel of efficient business training in our educational institutions.

Following the Mayor, Dr. Godfrey explained the inception of the plan, which had been long delayed in carrying out because of the war

and his continuous work in Washington, and was later postponed from last fall, at Dr. MacLaurin's request, because of the Endowment Fund campaign, but which he had been working on for over a year. On the side of education the newly organized Council of American Education would function to bring the colleges and technical schools into a working unit, and he had hopes that industry through its various organizations would find one to fill the same function for big business. For the furtherance of this end he had seen the heads of 80 colleges and 130 corporations and so interested them that they had subscribed a large sum to carry on the work of necessary research, writing and publishing these joint specifications for technical education. These corporations represented a capital of five or six billion dollars and all expressed themselves as urgently in need of trained executives.

Dr. Godfrey went on to give some startling statistics of the shortage of trained men in industry and the small number of possible men the colleges were turning out and would be turning out for two years to come. He sketched the necessary elements of a joint specification, namely, Production, Processes and Purchasing, and proceeded to analyze them from the standpoint of both the college and the business world.

The second speaker, Mr. Louis Musil of the Henry L. Doherty Co., a holding company for large public service corporations, then described the problem from the standpoint of the business man, the necessity of giving to the theoretically trained man that rapid, intensive, practical training which alone can make him of any use to his employer. The college man, he said, showed up best in these industrial schools, because of his previous training, and in their own school at least seventy-five men were today in high places in the organization who had obtained their start in the company's school. The school also served to reduce the time factor in making new men efficient by helping them choose their proper branch of the business from the beginning and so saving time later.

But, Mr. Musil said, the college can do a great deal more than it is doing, by fitting the student better to enter the company's school. In this preparation the human factor, the knowledge of human beings, was of the greatest importance, and the college man should make an especial study of practical psychology if he is to succeed in business, especially if he is to do successfully the real job of the management man, teaching the men under him how best to do their work. By planning its work more in relation to the organization schools, said Mr. Musil in closing, the colleges could greatly speed up the supply of management men, as well as help their own men to advance faster.

In introducing the following speaker Dr. Godfrey added in parenthesis that he knew of one concern alone which could place twelve hundred management men next year, and if that were true generally and if the colleges' product had dropped from twenty to sixty per cent during the war, it was easy to see how great the need was.

Dr. S. P. Capen, director of the new American Council on Education, next described the machinery by which American educational institutions expected to be able to co-operate with industry in getting the production of trained men on a more speedy and efficient basis. He was followed by Col. B. A. Franklin of the Strathmore Paper Com-

pany of Mittineague, Mass., who in his turn explained the possibilities of organization on the part of industries, to match the sixteen educational associations that Dr. Capen spoke of, now in the American Council of Education, and described how the trade associations, manufacturers' groups, the combines of similar industries, might form super-organizations whose representatives should form an industrial council to do, on the part of industry, what the American Educational Council is to do for education. These two super-organizations through expert representatives would write the specifications for both the college courses and the organization schools and through their administrative machinery see to it that they were adopted. Industry, Colonel Franklin asserted, is alive enough to do its part if the colleges will abandon their traditional attitudes, but, on the other hand, they must agree to absorb the yearly product of men if the schools are to revise their curricula in conformity to these outside demands. In their turn the colleges will doubtless have to install more general business courses as well as the necessary specialized ones. A technical school will have to turn out not merely engineers but engineers with a business training.

After Colonel Franklin's address the convention adjourned to a very pleasant luncheon and social hour or two, lunching in the galleries of the Institute and then wandering about admiring the rich treasures of arts and crafts and curios until the hour for the afternoon session was at hand.

#### AFTERNOON SESSION

##### *Business meeting of the Technology Clubs Associated*

At 2.30, Dr. Godfrey called to order the separate meeting of the Technology Clubs Associated in the main assembly room, while the college men and industrial representatives were meeting in small sections to discuss certain projected resolutions. Dr. Godfrey appointed a Committee on Resolutions to report at the end of the afternoon. The Committee consisted of Lester Gardner, '98, Van Rensselaer Lansingh, '98, F. A. Smythe, '89. When the Committee withdrew Dr. Godfrey withdrew also to attend his own section meeting, after introducing John M. De Bell, '17, who, in the absence of Dr. W. H. Walker, unfortunately prevented by illness from attending, explained to the gathering of Tech men the chief features of the plans of the Division for Industrial Co-operation and Research. The feature which provoked a good deal of discussion was the personnel service, which among other phases might call to the attention of the employing concern desirable opportunities for their technical men. Opposition to this practice was based on the inadvisability of alienating a subscribing corporation by approaching it with a suggestion that it release a man for promotion to another firm. Nearly every one at the meeting spoke on one side or the other, the consensus of opinion seeming to be that the plan contains elements of danger along this line which should be carefully guarded against.

Following this discussion the Committee on Nominations and Resolutions returned and Dr. Godfrey was summoned to preside and hear the report. The nominations were read and unanimously adopted, as follows:



For the Technology Clubs Associated during the coming year: *President*, Arthur T. Hopkins, '97, *vice-presidents*, Myron Clark, '03, Joseph Bancroft, '97, George Merryweather, '96, Elisha Lee, '92, *secretary-treasurer*, Walter Humphreys, '97.

As Mr. Humphreys was not able to be present at the convention, Prof. R. E. Rogers, editor of the *TECHNOLOGY REVIEW*, was appointed temporary secretary of the meeting.

Following the election four resolutions were offered and, after some debate, passed. They were as follows:

# I

WHEREAS, the necessity of a strong Alumni Organization has become increasingly evident during the recent Endowment Fund drive, and

WHEREAS, we believe that a more closely knit and co-ordinated body can be formed of the Alumni than now exists, which shall be of the greatest value to the corporation, the faculty and the student body, and

WHEREAS, we believe that in order to accomplish this a director of Alumni Activities should be appointed who shall be a graduate of at least ten years and of recognized standing in the commercial, technical, or professional fields,

THEREFORE, BE IT RESOLVED, that a committee of four be appointed by the President to present a resolution expressing these ideas to the Alumni Council for their consideration.

# II

RESOLVED, that the Technology Clubs Associated in convention assembled recommend to the Alumni Council consideration of the policy of faculty representation upon the Corporation and the advisability of recommending this plan to the Corporation.

# III

RESOLVED, that the Technology Clubs Associated extend to Hollis Godfrey, '98, a vote of thanks for his efficient work in organizing and financing this meeting of the Technology Clubs Associated in Philadelphia.

# IV

A fourth resolution was passed, copy not extant, by which the new president of the Technology Clubs Associated was empowered to work out a permanent plan for the future activities of the Technology Clubs Associated along some well defined lines.

In the debate on these resolutions Merton L. Emerson, '04, described his experience during the weeks he was working in close touch with the Institute, and said that he had come to feel that a close and well organized alumni interest was more important than funds, and that he saw certain needs at the Institute which the Alumni might well look into and remedy, such as the possibility of something to be the equivalent of chapel in other colleges, more attention to the health of housing of the students, an infirmary, etc., as well as more attention

to the administrative and organization needs of the school. He added that as the influence of the Council was largely Bostonian, not wholly cosmopolitan, he felt that the Technology Clubs Associated could be very valuable in the influence they might exert along these lines. He also spoke briefly on the projected All-Technology Reunion the coming June, and that the Alumni were necessary now as never before in the greatest hour of Technology's need.

The President then appointed a committee to look into the matter of a permanent Alumni Director to report to the Alumni Council, as follows: Coleman du Pont, president of the Alumni Association, A. T. Hopkins, president of the Technology Clubs Associated, Van Rensselaer Lansingh, director of the Paris Technology Bureau, Lester Gardner, president of the Technology Club of New York.

Theodore H. Skinner, '92, of Oneida, New York, offered a resolution, to be circulated among all Tech Clubs, urging Tech men everywhere to get into politics during this presidential year and do their best to put trained and competent men into office. After a lively debate in which many took part, particularly James P. Munroe, '82, and Robert S. Allyn, '98, alderman of New York City, Dr. Godfrey and Major Gardner, the resolution was returned to a special committee to be redrawn and submitted to an adjourned meeting on the following morning after the regular meeting.

Mr. Van Rensselaer Lansingh, '98, spoke briefly on the American University Union's plans for the future as a permanent organization in both Paris and London and described the fund to be raised for that purpose.

Mention was made of Rochester as a suitable meeting place of the Technology Clubs Associated in 1921, as a recognition of George Eastman's generosity.

The meeting adjourned at 5.35.

#### ADJOURNED MEETING, TECHNOLOGY CLUBS ASSOCIATED

*Saturday morning, March 27*

After the main meeting the following morning a brief adjourned meeting was held to consider the revised resolution from the earlier meeting. After some discussion and amendment the following was passed:

It is the unanimous conviction of the Technology Clubs Associated, in convention assembled, that since many, if not most, of the modern problems of government in our towns and cities, in our states and at Washington, are those of applied science, of engineering, of immense or of efficient organization, that men or women with the training given in the higher institutions of learning should take an active and leading share in solving them.

They should do this not only by serving upon boards and commissions established to deal with such problems, but also by participating directly in the framing of laws and ordinances dealing with the public welfare, either through actual membership in town and county boards, in State legislatures or in the Congress, or through making certain that those who do thus serve are competent, honest, and have the public rather than personal interests in view.

It is therefore urged that the constituent organizations of the Technology Clubs Associated bring this matter of clean and efficient administration of public affairs forcefully before their members at an early date, to the end that all Technology men and women may become aroused to the obligation which their training imposes upon them to take constructive interest and to give personal service in the solution of the many pressing and far-reaching problems of this reconstruction period, with knowledge, effectiveness and an eye single to the common welfare.

After which the meeting of the Technology Clubs adjourned for the year and the members, after lunch, inspected Hog Island Ship Yard.

EVENING, FRIDAY, MARCH 26

*Dinner at the Bellevue Stratford*

The registration for the dinner from Tech men alone in and around Philadelphia, who were unable to attend the afternoon session was so large, that with the delegates from other colleges and industries, the Clover Room at the Bellevue Stratford was filled with an enthusiastic audience that listened appreciatively to some remarkably sound and eloquent speaking on the various subjects raised by the discussions during the day. Elisha Lee, '92, presided with an effective dry wit, and introduced first Dr. Godfrey who told the newcomers something of the plan which had brought them all together and then retired in favor of the other speakers.

James P. Munroe, '82, told something of the trials of a business man and politician among the Philistines of Congress and the daily press, and refuted particularly the attacks made upon the Board of Vocational Education by a New York newspaper. He also amplified the idea of the political resolution by showing the inability of the average congressman with his usual training to deal with the tremendous problems that more and more demanded trained engineers and scientific men for their solution.

Matthew C. Brush, after a witty introduction by the toast-master and an equally witty retort (which got into the papers the next morning as a hot and serious passage at arms), made an extremely vivid and brilliant speech in favor of more human education for engineers, training in broad business lines instead of pure theory alone, and particularly training in the ability to handle men. Mr. Brush paid a high tribute to the Tech men working under him and gave as proof of their ability some amazing statistics as to the speed with which fully equipped vessels were being turned out at Hog Island, a speed which in time of war could be raised to "a 100% ship every 24 hours."

Mr. Brush received an ovation, but the real laughing hit of the evening was made by Dr. Robert Bruce Taylor, president of Queens University, Kingston, Ontario, who with true Scotch wit and an amazing accent drove home the point that the classical university education can fit men for business as well as the technical, showing instances from his experiences to prove it.

The dinner adjourned with the singing of "Auld Lang Syne."



DR. HOLLIS GODFREY, '98  
President of the Technology Clubs Associated



## SATURDAY MORNING SESSION

The best account of the final session on Saturday morning, which was of less particular interest to Tech men, is to be found in the following extract from the Philadelphia *North American*:

"Creation of a permanent council of industry and education that is expected to revolutionize methods of training technical students in colleges and universities throughout the country was accomplished at the final session of the joint conference, held under the auspices of the Technology Clubs Associated, at Drexel Institute.

"Dr. Hollis Godfrey, president of Drexel, the man who conceived the plan of co-operation now about to be put into effect, was made chairman of the joint committee. This will consist of one member from each of the basic industries represented at the conference and a board appointed by the American Council on Education.

"Doctor Godfrey announced that the first meeting of the joint body will be called within a week. Its members will go over specifications for the kind of men needed by each industry, with reports from each college and university giving technical training.

"The whole will then be embodied in a report which will be sent to all the industries and colleges. By next fall, it is hoped that scores of institutions will inaugurate new courses of technical training in various lines and that virtually all will make radical changes in the methods of teaching.

"By far the most significant result of the two-day conference was the emphasis placed by industrial executives on the necessity for what they called 'human training.' To back up their demand for men qualified to handle men, they are to write out their ideas of what additional courses should be given to technical students to supply them with this quality.

"In effect, the new council gives to all the educational institutions of the United States that care to take advantage of it, the value of experience gained by America's most successful executives. Included in this group are financiers of international note and creators of the country's largest industries.

"These men and the industries they represent already have shown their interest by financing the new council. It was learned yesterday that each of the groups had made an initial subscription of \$2500 to put over the plan of co-operation.

"The ultimate result of this plan will be to increase the number of technical courses, the number of students, to change and modernize present methods so that they shall meet the ideas of men who will employ the students. But the immediate result also will be virtually to guarantee good jobs to every technical student of a recognized institution throughout the country.

"This will be done through the council acting as a clearing house of information. It will be able to lay before students and faculty of every educational institution in the country the exact needs of every big industry in the way of men, with a summary of the qualifications needed.

"As an instance of how the thing will work, the Goodrich Rubber Company yesterday made an offer to hire every member of Drexel's

graduating class in the engineering course at \$1800 a year. The resolution creating the new council follows:

*Resolutions*

"WHEREAS, the development of the American Industry and Commerce is dependent upon the three factors, materials, money and men and money and materials are of no avail without the management of trained and experienced men,

"WHEREAS, Industry and the college, the two courses of supply of experienced and trained men for management and executive position, have produced only a fraction of the normal supply of these men owing to the exigencies of war, and

"WHEREAS, the course of supply of such men in the United States and other belligerent countries of the world during the war period was greatly diminished or practically completely cut off, and in addition these who constituted the earlier supply from a belligerent country other than the United States are dead or disabled, and

"WHEREAS, owing to the technical requirements in industry and the urgent necessity for increase of production and decrease of cost, the demand of the next few years for trained and experienced management men is far greater than ever before, be it

"RESOLVED, first, that each of the industrial groups represented in this movement for the writing of a joint specification by industry and the college appoint a committee, one of whose members shall ask as a delegate to a Central Council,

"RESOLVED, second, that this Council shall appoint a co-operating committee to act with the committee designated by the American Council on Education.

"RESOLVED, third, that these two Committees shall act as a joint clearance committee to advance the drawing up of specifications as to the qualifications of college trained men and women needed by the several industries, disseminating both to the college and the industry the information necessary to secure an increase in quantity and a betterment of quality of the output of the college.

"RESOLVED, fourth, that Dr. Hollis Godfrey call the first meeting, of the Council, acting as its temporary chairman.

"That this council shall appoint a co-operating committee to act with the committee designated by the American Council on Education.

"Two addresses were made at the final session yesterday. Doctor Godfrey criticised 'get-rich-quick' methods of education of the 'overnight' variety, and spoke in favor of the slow but sure methods of established institutions. George R. Wales, United States civil service commissioner, made a plea for 'the greatest employer in the world, the United States government.'

"Wales also made the prediction that the vast increase of government employees brought about by the war is not to be temporary, and that most of the new business will be expanded and enlarged. 'There is no prospect,' he said, 'that the activities of the government will be curtailed to the pre-war standard, at which time the entire classified service reached the total of about 300,000 employees.'

"The research and scientific work of nearly all those bureaus

which were expanded to satisfy war needs will be continued in large measure; the opportunities for service and advancement will be accordingly increased.

"Commissioner Wales made the charge that many educational institutions are discouraging their men from entering the government service. He then outlined some of the work done by government technical bureaus, and declared that this is generally recognized as equivalent to post-graduate work by colleges and industry.

" 'Within the last few weeks,' he said, 'I have heard of a boast made by one of the leading technical institutions of the country, located within the state of Pennsylvania, to the effect that it not only did not advise its students to enter the government service, but discouraged them from doing so, and it boasted also of the fact that none of its graduates had taken any government work during the last eight years.'

" 'During the war, a very agreeable patriotic impulse was manifested by all our people, and men of attainments volunteered their services to help the nation in its time of greatest need. But it seems to me that our patriotism should not be forgotten in times of peace, and especially during the reconstruction period when the very best trained men are virtually needed to restore to proper balance the productive energy of the country.'

" 'Our government is and will be whatever the people make it. If it is not efficient, the people are to blame because they do not make it so. It is folly to criticise the work of the government and then refuse to assist in making the conditions better. The government should be the first consideration of the people instead of the last.' "

The convention ended at noon Saturday, but the delegates largely remained for lunch and the afternoon inspection of Hog Island.

The number of Technology men registered during the convention was 106, of whom perhaps half were present at the daily meetings, the rest attended the banquet only. The complete list of delegates, with Technology men identified by numerals, is appended.

#### REGISTERED AT TECHNOLOGY CLUBS ASSOCIATED, MARCH 25-26, 1920

Adams, M. B.	Georgetown, Ky.
Aiken, Charles W. '91	2304 Newkirk Avenue, Brooklyn, N. Y.
Akerly, H. E. '10	Eastman Kodak Co., Rochester, N. Y.
Allyn, R. S. '98	41 Park Row, New York
Anderson, C. A. '05	327 Commercial Trust Building, Philadelphia, Pa.
Anderson, J. A.	Virginia Military Institute, Lexington, Va.
Angas, W. Mack	Navy Yard, Philadelphia, Pa.
Babcock, William S. '83	17 Battery Place, New York
Baber, Malcolm J. '18	Camden, N. J.
Baker, Hugh P.	18 East 41st Street, New York
Baldwin, George P. '91	General Electric Company, Philadelphia, Pa.
Barnett, F. Dodge	duPont Building, Wilmington, Del.
Barnwell, George W. '14	207 Penn Street, Camden, N. J.
Barton, Royal M. '11	18 South Fifth Street, Reading, Pa.
Baskerville, Charles	College of the City of New York, New York
Bates, D. M. '96	611 Chestnut Street, Philadelphia, Pa.
Bellaty, C. E.	Boston University, Boston, Mass.
Bigelow, Albert F.	111 Devonshire Street, Boston, Mass.

Bigelow, Charles H. '92  
 Bigelow, George S.  
 Bingham, M. V.  
 Birge, E. A.  
 Bishop, F. L. '98  
 Blood, John Balch, '90  
 Bond, G. R., Jr. '19  
 Bowditch, Ingersoll '00  
 Boyle, John, Jr. '01  
 Bradlee, Charles W. '97  
 Bringham, John

Caparo, J. A.  
 Capen, S. P.

Carroll, D. D.

Carter, Emmett B.

Charlton, R. C.  
 Chase, P. H.

Christie, A. G.  
 Clark, Myron H. '03  
 Coey, Stewart C. '06

Coffin, Edward M. '05  
 Combes, A. L.  
 Conover, Milton

Coolidge, Sidney  
 Cooper, Anne E.  
 Cox, Frank G. '03  
 Crane, Edward A. '89  
 Cushing, W. C. '87

Dalton, M. B. '15

Damon, J. W. '18  
 Darling, Henry E. '06

Davis, D. C. '06  
 De Bell, J. M. '17

Disston, W. D.  
 Dodge, Robert L. '10

Dunham, J. H.  
 Dunn, Charles

Eberhard, George F.  
 Emerson, M. L. '04  
 Everett, Harold A. '02  
 Eyanson, Prof. C. L.

Farnum, Royal B.  
 Felton, Edgar C.  
 Franklin, B. A.

Gaertner, Fred, Jr.  
 Gardner, L. D. '98  
 Gibbs, A. W.  
 Gilbreth, Major F. B.

Millertt, N. J.  
 Millville, N. J.  
 Pittsburgh, Pa.  
 Madison, Wisconsin  
 University of Pittsburgh, Pittsburgh, Pa.  
 248 High Street, Newburyport, Mass.  
 Riverside Club, Pennsgrove, N. J.  
 111 Devonshire Street, Boston, Mass.  
 Ouray Building, Washington, D. C.  
 Boston, Mass.  
 Drexel Institute, Philadelphia, Pa.

Notre Dame, Indiana  
 American Council on Education, 818 Connecticut Avenue, Washington, D. C.  
 Dean of School of Commerce, University of North Carolina, Chapel Hill, N. C.  
 Midvale Steel and Ordnance Co., Nicetown, Philadelphia, Pa.  
 Henry Disston & Son, Tacony, Philadelphia, Pa.  
 The American Railways Co., 920 Witherspoon Building, Philadelphia, Pa.  
 Johns Hopkins University, Baltimore, Md.  
 United States Rubber Co., 1790 Broadway, New York  
 The Celluloid Co., 39 Wildwood Terrace, Glen Ridge, N. J.  
 18 Tremont Street, Boston, Mass.  
 New York Ship Corporation, Camden, N. J.  
 Political Science Department, University of Pennsylvania, Philadelphia, Pa.  
 Lowell Bleachery, Lowell, Mass.  
 1330 Pine Street, Philadelphia, Pa.  
 2415 West 17th Street, Wilmington, Del.  
 1012 Walnut Street, Philadelphia, Pa.  
 Penna. System, Broad Street Station, Philadelphia, Pa.

Liberty Mutual Insurance Co., 22 South 15th Street, Philadelphia, Pa.  
 639 Drexel Building, Philadelphia, Pa.  
 American Telephone & Telegraph Co., 195 Broadway, New York  
 832 Glen Terrace, Pa.  
 Massachusetts Institute of Technology, Cambridge, Mass.  
 H. Disston & Son, Philadelphia, Pa.  
 Bell Telephone Co., 326 Morgan Avenue, Palmyra, N. J.  
 Temple University, Philadelphia, Pa.  
 252 West Water Street, Lock Haven, Pa.

Ingersoll-Trenton Watch Factory, Trenton, N. J.  
 Philadelphia, Pa.  
 Annapolis, Maryland  
 Drexel Institute, Philadelphia, Pa.

President, Mechanics Institute, Rochester, N. Y.  
 Morris Building, Philadelphia, Pa.  
 Strathmore Paper Co., Mittineague, Mass.

Robert H. Ingersoll & Brother, New York  
 22 East 17th Street, New York  
 Broad Street Station, Philadelphia, Pa.  
 Montclair, N. J.



- Godfrey, A. H.  
Godfrey, Dr. Hollis '98
- Godfrey, L. W. '00  
Goodspeed, G. M. '97  
Gorham, Crosby  
Green, C. F. '03  
Greene, Arthur M., Jr.  
Griswold, Robert G.  
Gruber, R. E. '16  
Guthrie, J. F. '15
- Hanna, F. A.  
Harper, Kenneth L. '16  
Hall, Herbert H. '14  
Haynes, Delos G. '09  
Heckel, G. B.
- Hogue, C. J. '99  
Holcombe, Amasa M. '04
- Hood, John M. '16  
Hopkins, A. T. '97
- Howe, Charles S.
- Hoef, Charles W.  
Huckins, Edgar W. '18  
Hughes, Hector J.
- Hussey, Clarence L. '08
- Jarvis, C. D.  
Jenckes, Earl S. '94  
John, Walton C.  
Johnson, Lewis E. '89
- King, R. J. '03  
Kern, H. W. '90  
Kolbe, Parke R.
- Lansing, V. R. '98  
Laurson, Philip G. '10
- Linthicum, Frank  
Loeb, L. '08
- Logan, John W. '93
- MacCracken, J. H.  
McCrea, Dr. R. C.  
McGregory, J. F.  
MacDonald, Prof. E. D.  
Mann, C. R.  
Masucci, Peter '15  
Mattox, W. C.
- Mayer, Albert '19  
Mehaffey, William Chambers '17  
Merrill, E. D. '09
- Merrill, M. W. '13
- 639 Drexel Institute, Philadelphia, Pa.  
President, Technology Clubs Associated, Drexel Institute, Philadelphia, Pa.  
Bourse Building, Philadelphia, Pa.  
National Tube Co., McKeesport, Pa.  
233 Broadway, New York  
Stone & Webster, 2015 Green Street, Philadelphia, Pa.  
Troy, N. Y.  
H. L. Doherty & Co., 60 Wall Street, New York  
28 West 47th Street, New York  
47 Ashmead Place, Germantown, Philadelphia, Pa.
- 32 West 40th Street, New York  
Eddystone Manufacturing Co., Eddystone, Pa.  
United States Aluminum Co., New Kensington, Pa.  
Syndicate Trust Building, St. Louis, Mo.  
Secretary, Paint Manufacturers' Association, 636 Bourse Building, Philadelphia, Pa.  
3734 Grand Central Terminal, New York  
Washington Loan and Trust Building, Washington, D. C.  
Esleeck Manufacturing Co., Turners Falls, Mass.  
United States Rubber Co., 191 Edwards Street, New Haven, Conn.  
President, Case School of Applied Science, Cleveland, Ohio  
New Jersey Gas Co., Glassboro, N. J.  
Stone & Webster, 1314 Beach Street, Philadelphia, Pa.  
Harvard Engineering School, Harvard University, Cambridge, Mass.  
State Board of Public Roads, Providence, R. I.
- United States Bureau of Education, Washington, D. C.  
Joseph Bancroft & Sons Co., Wyomissing, Pa.  
United States Bureau of Education, Washington, D. C.  
Bethlehem Steel Bridge Corporation, Bethlehem, Pa.
- United States Rubber Co., New Haven, Conn.  
179 West Washington Street, Chicago, Ill.  
President, University of Akron, Akron, Ohio
- 32 West 40th Street, New York  
Sheffield Scientific School, Yale University, New Haven, Conn.  
Drexel Institute, Philadelphia, Pa.  
Day & Zimmerman, 611 Chestnut Street, Philadelphia, Pa.  
Alan Wood, Iron and Steel Co., 1814 Widener Building, Philadelphia, Pa.
- President, Lafayette College, Easton, Pa.  
Columbia University, New York  
Colgate University, Hamilton, N. Y.  
Drexel Institute, Philadelphia, Pa.  
War Department, Washington, D. C.  
Glenolden, Pa.  
Walworth Manufacturing Co., 142 High Street, Boston, Mass.  
41 East 72d Street, New York  
Chambersburg Construction Co., Chambersburg, Pa.  
Philadelphia Rapid Transit Co., 59th Street and Callowhill, Philadelphia, Pa.  
United States Metals and Refining Co., Elizabeth, N. J.

- Merryweather, George E. '96  
 Metzger, C. A.  
 Miller, Prof. John A.  
 Miller, Lewis A. '01  
 Mitchell, Samuel C.  
 Mitten, Paul  
 Moody, Prof. Herbert R. '92  
 Moore, F. Clouston '91  
 Morss, Henry A. '93
- Munn, Mrs. P. J.  
 Munn, Mr. P. J. '15  
 Munroe, James P. '82
- Musil, Louis F.
- Nagle, Arthur R. '10  
 Newkirk, Walter M. '92
- Newkirk, Mrs. W. M.  
 Noyes, J. K. '90
- Palmer, V. M. '03  
 Pearson, Prof. J. S.  
 Pierce, D. E. '17  
 Pike, Clayton W. '89  
 Pizzorno, P. P. '16  
 Poland, William B. '90  
 Pouchain, Kent A.
- Pratt, E. S. '15  
 Prentice, D. B.
- Quinby, Dr. R. S.
- Ralph, P. J. '05
- Ranger, R. H. '13  
 Rankin, John Hall '89  
 Rautenstrauch, Walter  
 Reber, James B. '14  
 Reid, Dr. Legh R.  
 Rice, Fred B. '85  
 Rittenhouse, L. H.  
 Roberts, Major O. E.
- Rockefeller, Mrs.  
 Rodman, Walter S. '09  
 Rogers, Prof. Robert E.  
 Rowell, George F. '92  
 Ryder, J. P. '84  
 Ryerson, Edward L. '09
- Sackett, Dean R. L.  
 Shaw, Dr. H. B.  
 Sheppard, G. Fenwick
- Sherman, Benjamin H. '19  
 Skinner, Theodore H. '92  
 Smith, J. M. '87  
 Smythe, F. A. '89  
 Snow, Charles H.  
 Sohler, William D. '78  
 Solly, William
- Notch & Merryweather Machinery Co.  
 Bethlehem, Pa.  
 Swarthmore College, Swarthmore, Pa.  
 Moylan, Pa.  
 President, Delaware College, Newark, Del.  
 Drexel Institute, Philadelphia, Pa.  
 College of the City of New York, New York  
 840 East Washington Street, Hoopston, Ill.  
 Treasurer Simplex Wire and Cable Co., 201 Devon-  
 shire Street, Boston, Mass.
- 916 Chestnut Street, Philadelphia, Pa.  
 Munroe Felt and Paper Co., 79 Summer Street, Boston,  
 Mass.  
 H. L. Doherty & Co., 60 Wall Street, New York
- 334 Fourth Avenue, New York, New York  
 William & Harvey Rowland, Inc., Frankford, Phila-  
 delphia, Pa.
- Noyes Comb Co., 43 Davis Street, Binghamton, N. Y.
- Eastman Kodak Co., Rochester, N. Y.  
 Drexel Institute, Philadelphia, Pa.  
 1905 Washington Street, Wilmington, Del.  
 1109 Finance Building, Philadelphia, Pa.  
 3808 Spring Garden Street, Philadelphia, Pa.  
 115 Broadway, New York City.  
 Tasty Baking Co., 4403 Osage Avenue, Philadelphia,  
 Pa.  
 The Celluloid Co., Newark, N. J.  
 Lafayette College
- Hood Rubber Co., Watertown, Mass.
- Emergency Fleet Corporation, 1530 Spruce Street,  
 Philadelphia, Pa.  
 Captain Signal Corps, Camp Nail, N. J.  
 1012 Walnut Street, Philadelphia, Pa.  
 Columbia University, New York  
 Auburn, N. Y.  
 Haverford College, Haverford, Pa.  
 Rice & Hutchins, 10 High Street, Boston, Mass.  
 Haverford College, Haverford, Pa.  
 Chemical Warfare Service, Unit F., 7th and B Streets,  
 Washington, D. C.
- University of Virginia, University, Virginia  
 Editor, TECHNOLOGY REVIEW, Cambridge, Mass.  
 611 Chestnut Street, Philadelphia, Pa.  
 Drexel Institute, Philadelphia, Pa.  
 2558 West 16th Street, Chicago, Ill.
- Pennsylvania State College, State College, Pa.  
 H. L. Doherty & Co., 60 Wall Street, New York  
 Sheppard Manufacturing Co., Manayunk, Philadel-  
 phia, Pa.  
 duPont Co., Colonial Hotel, Penns Grove, N. J.  
 Oneida Community, Oneida, N. Y.  
 Drexel Institute, Philadelphia, Pa.  
 Lorain, Ohio  
 Dean New York University, New York  
 53 State Street, Boston, Mass.  
 Drexel Institute, Philadelphia, Pa.

Soulis, Hugh E. '12	Bell Telephone Co., Philadelphia, Pa.
Spivey, Willis	Drexel Institute, Philadelphia, Pa.
Stockman, Charles C. '18	Yale University, New Haven, Conn.
Stowe, A. Monroe	President, Toledo University, Toledo, Ohio
Strong, Edward K., Jr.	Carnegie Institute of Technology, Pittsburgh, Pa.
Symmes, Ernest M. '11	Hercules Powder Co., Wilmington, Del.
Taylor, Dr. R. Bruce	President Queen's University, Kingston, Ontario, Canada
Tennant, Dr. D. H.	Bryn Mawr College, Bryn Mawr, Pa.
Thomas, C. C.	Johns Hopkins University, Baltimore, Md.
Thomas, Francis E. '17	Phoenix Bridge Co., Phoenixville, Pa.
Thomas, George S. '10	Cramps Shipyard, 106 Union Avenue, Philadelphia, Pa.
Thompson, A. G. '12	1109 13th Avenue, Altoona, Pa.
Tilden, Prof. Charles J.	Yale University, New Haven, Conn.
Tillson, Percy E. '06	1631 Arch Street, Philadelphia, Pa.
Tullar, R. J. '13	37 West LaCrosse Avenue, Lansdowne, Pa.
Twitmyer, Dr. E. B.	University of Pennsylvania, Philadelphia, Pa.
Vitelis, Morris S.	University of Pennsylvania, Philadelphia, Pa.
Waite, Henry M. '90	Lord Construction Co., 105 West 40th Street, New York
Wales, G. R.	United States Civil Service Commission, Washington, D. C.
Walker, William	Massachusetts Institute of Technology, Cambridge, Mass.
Weingartner, N. B.	New York Shipbuilding Corporation, Camden, N. J.
Weiskittel, F. A. '19	A. Weiskittel & Son Co., 2933 North Charles Street, Baltimore, Md.
Whitaker, J. C. '16	404 Sylvania Avenue, Glenside, Pa.
Whitcomb, W. H. '03	United States Rubber Co., New Haven, Conn.
White, John	President Rose Polytechnic Institute, Terre Haute, Ind.
Wiggins, E. W. '05	du Pont Co., Wilmington, Del.
Wiley, W. O.	432 Fourth Avenue, New York
Wilson, Louis A. '14	Palmerton, Pa.
Woodbridge, R. G., Jr. '07	duPont Co., Wilmington, Del.
Young, Erving M. '11	Stone & Webster, 1421 Arch Street, Philadelphia, Pa.
Zook, George F.	Bureau of Education, Washington, D. C.

## GERARD SWOPE, '95, RECEIVES THE DISTINGUISHED SERVICE MEDAL

### THE CITATION

FOR exceptionally meritorious and distinguished service. As one of the principal advisers and assistants to the Director of Purchase, Storage and Traffic he accomplished the task of working out the detailed plan for bringing under one head the direction and supervision of procurement, storage and issue of all commodities, and articles of equipment and supply needed for the Army. It was due to his foresight, ability, energy and loyal co-operation that the procurement program for the great Army of 1918 was successfully planned, and he assisted materially in carrying it into effect, thereby contributing directly to the success of the military program.

## RICHARD COCKBURN MACLAURIN

BY JAMES P. MUNROE, '82

THREE outstanding stages mark the triumphant development of the Massachusetts Institute of Technology and each is associated with a conspicuous leader. The first stage, that of conceiving and establishing an institution new to educational thought, is forever linked with the founder, William Barton Rogers. From 1846, when he and his brother Henry first drew up a plan for an institution of applied science, until his tragic death in 1882, Rogers was the dominant figure; for he was the great crusader, learned, convinced, inspired, preaching a higher education framed to meet the urgent needs of his time. Gradually and painfully he rallied to his standard, first a handful and then a host of men, not always grasping his great vision which was too comprehensive for even him to measure but believing in him and in his intellectual power, his crystalline reasoning, his mastery of essential detail. Many of them, indeed, to whom science meant little were lured to his support simply by the magic of his matchless eloquence.

The second dominant figure is that of another forward-looking leader, possessing also the clear brain, the mental honesty, the enthusiasm and personal magnetism of his predecessor — Francis Amasa Walker, who received the torch of the Institute from the wearied hands of Rogers and carried it forward, flaming ever higher, until he, too, died worn out, in the fulness of his manhood, as Rogers had been in the fulness of years, by the magnitude of the task and by superhuman zeal in its performance.

Rogers left the Institute of Technology an embodiment though still, by reason of youth, only a feeble vehicle of a far-reaching, new principle in education. Walker strengthened and enlarged that instrument, kept it from "entangling alliances" and left it powerful and national where he had found it weak and local. There remained to be performed a third service, that of solidifying the labors of Rogers and of Walker into an impregnable institution housed in fitting buildings, made capable of indefinite material expansion, safeguarded by an endowment adequate to its high responsibilities, and welded to the industrial, as well as to the educational, world by closest bonds of mutual interest.

This third essential service was performed, between 1909 and his sudden death, in January last, by Richard Cockburn Maclaurin. Rogers, comparatively speaking, was an old man when he laid down his staff of service to the Institute; but those long years of devotion had been a ceaseless battle against grievous ill-health. Walker and Maclaurin, vigorous men both, gave of that vigor so abundantly that the one at fifty-seven and the other at fifty years of age, succumbed to the strain of their ceaseless labors for Technology. The ground of the great school is therefore for all time consecrated by sacrifice — not only of these three outstanding figures, but of many others, especially in the earlier days, who, under the inspiration of such leadership and of the compelling vision of what the Institute might be, gave of their strength and, too



often, of their lives, in order to build the institution to its commanding height.

Rogers, a Virginian, brought to Technology not only the grace and courtesy of the South, but also the simplicity so inbred in his mother-institutions, William and Mary and the University of Virginia. Walker, a New Englander, but long schooled in the hard and disillusioning atmosphere of political Washington, brought to the Institute a vigor of action and a national point of view essential at that stage of its career. While Maclaurin, a Scotsman reared in New Zealand, brought to the school not only the characteristic shrewdness of his prescient, hard-headed race, but also a cosmopolitan point of view and an international consciousness which proved of the highest value, especially during the turmoil of the World War.

He was born at Lindean, Scotland, in 1870, received his youthful education in New Zealand, whither his parents moved soon after his birth, was graduated in both science and law at the University of Cambridge, traveled in America, studied in Germany and taught, as professor of mathematics, and administered, as Dean of Law, at the University of New Zealand, for the nine years after 1898. Called to the chair of mathematical physics at Columbia University in 1907, he was during the next year invited to become the President of the Institute but, because of his obligations in New York, was not inaugurated until June, 1909.

Maclaurin found the Institute of Technology rich in reputation but disastrously poor in material resources. With the exception of a few large bequests which had either been put, of necessity, into buildings and equipment, or which had been tied up in scholarships and fellowships, the school was dependent mainly upon such moneys as might be begged each year from generous friends to eke out the inadequate receipts from fees. It was aided by a few thousand dollars of Federal grants and it had an annual subsidy of one hundred thousand dollars from the Commonwealth. The latter grant, however, would soon expire and might not be renewed. The alumni had contributed as generously as they could from time to time; but the vast majority of them are still young men unable to spare much money to their mother school. Even more distressing than this pinching poverty was the crowded condition of the Institute's buildings, their capacity hurtfully overtaxed, some of them, erected for what was believed to be a temporary use, falling into dangerous and costly disrepair, the group widely scattered and none of the buildings, excepting the original one on Boylston Street, an adequate expression of the spirit of an institution which has within it a leading school of architecture.

Even before the death of President Walker the importance of moving to a commodious and commanding site had been discussed; and, in the intervening years, formal and informal committees and interested groups of Technology men had canvassed every possible location, interviewed every likely giver and seemingly exhausted all practicable means of taking the decisive step which, by calling attention to the Institute and by giving it room to work and to expand, would undoubtedly prove the one thing needed to raise the school out of what was rapidly getting to be a species of stagnation.

This pressing need for a new site and for adequate endowment was

the dominant note of the second Technology Reunion of the alumni held in connection with the inauguration of President Maclaurin; and with characteristic acumen the new executive applied himself to the realization of this third great step in the development of the Institute without which the magnificent efforts of Rogers, Walker and their co-workers were in danger of coming to naught.

But he must begin by surveying the situation and laying out the important campaign with full understanding of all the elements involved. The task was made peculiarly difficult for him personally because he had first to acquaint himself with the general temper of a country essentially unknown to him, with its particular idiosyncracies as manifested in Massachusetts and in Boston, with an alumni organization and spirit that, to a graduate of the University of Cambridge, was absolutely strange. Moreover, and first of all, he had to become intimate with the ideals and methods of the Institute itself and with the great body of persons who, as trustees, members of the faculty, alumni and undergraduates, he was to serve as leader and co-ordinator.

Being a wise man as well as a Scotsman, Dr. Maclaurin moved neither hastily nor without thorough study of the problem with which he had to deal. Naturally reticent, he spent a long time listening, observing, pondering, and took no step upon impulse or without foreknowledge of its probable result. Before he could ask for money for new land and buildings, he must know which, from every point of view, might be the best site and what, in general, those buildings should be from the standpoint both of service and of architectural effect. The problem of site had been somewhat simplified by the earlier activities already referred to; but even there Dr. Maclaurin refused to accept the judgment of others without confirming it by personal observation. So he patiently examined a long list of possible locations, even as far away as Springfield, and, with expert advice, weighed their several advantages and disadvantages. Finally he and his advisors reached the conclusion that the school should be placed, if possible, on one of several alternative sites in Greater Boston. Thereupon he entered into the involved negotiations necessary to make those locations temporarily secure without paying too high a price for bringing together various owners.

The options secured, it was necessary to obtain as quickly as possible the money to realize upon one of them. How that was done is best told in President Maclaurin's own words. In his last address to the Alumni Association prepared, as it proved, almost on his death-bed, the President said: "After consultation with my colleagues, I went to describe the situation to Coleman du Pont. That was nine years ago, but I remember the incidents of my first visit as if it had happened yesterday. I arrived in Wilmington early in the morning and although du Pont was at that time a very sick man he was up to greet me and greeted me cheerfully. We got to business immediately and it was all settled in ten minutes. I described the broad features of our condition and said that we must move to a new site. He asked what sites were under consideration and wanted a brief description of each. The first one I mentioned was twenty-five acres in area. He said, 'Can't you double it?' and I said 'Not this particular site.' 'Well', he said, 'I don't like the look of twenty-five acres. It seems to me too small. Almost invariably when a

man comes to me to approve plans of a new factory (Mr. du Pont was then president of the powder company) I tell him to double the size of everything and almost invariably I wish afterward that I had used a larger factor of safety. Technology will occupy a great position in the future, and must have room to grow. I don't feel much attracted by twenty-five acres, but I should be interested in fifty.' I agreed with his policy, but told him, of course, that the main obstacle was cost. 'What would fifty acres cost?' he asked. I told him 'Three-quarters of a million' and he said that he would contribute half a million. That was the egg from which so much has grown within the last nine years."

The rest of the money needed to purchase the Cambridge property was contributed by members of the Corporation. The site thus secured, there remained two very difficult and practical questions: the first to choose an architect and to decide, with his advice, upon the type and disposition of the buildings; and the second to procure, with those plans as the compelling argument, the large gifts essential to convert paper pictures into actual edifices of brick or stone. In this connection too great praise cannot be given to the heads of the various departments and to their staffs for the exhaustive studies which they made preliminary to the drafting of the plans. The present and future needs of their several departments were examined in the minutest detail and as it turned out with gratifying accuracy. Mr. John R. Freeman, too, gave generously of his experience and judgment, organizing a staff of men to make such preliminary studies of foundations, orientation, lighting, ventilation, etc., as are fundamental. As architect was chosen Mr. William W. Bosworth, of the class of 1889 and the contract for building was awarded to the Stone & Webster Engineering Corporation, headed by two members of the class of 1888 and manned to a considerable extent by graduates of the Institute. After prolonged discussion as to the respective merits of isolated or continuous buildings, the latter type was chosen and the existing classic group was, in 1914, begun. Less than half the ultimate pile is as yet erected; but the whole plan — permitting of the expansion of any department without disorganization of the others — is worked out and, when finished, will be the enduring monument, than which no man could ask a more splendid or conspicuous one, to President Maclaurin.

But buildings that have already cost \$7,500,000 do not arise like Aladdin's palace. Every stone means energy on the part of some one whose money is therein invested, means zeal and power on the part of some one else to make him see that this is the way in which that money should be spent. As it stands the Technology group represents large gifts from a few alumni, smaller gifts — especially in the Walker Memorial — from many past students of the Institute and contributions and bequests from a considerable number of other persons, some of them not directly associated with the school. But the chief giver, he who made the group possible and who, later, gave half of the recent endowment fund of eight million dollars, was the Mr. "Smith" whose identity was for eight years successfully concealed, but who, since he permitted his name to be given out at the alumni dinner in January, is known to be Mr. George Eastman, of Rochester, New York.

How Mr. "Smith" was first approached, Dr. Maclaurin has recently

described. In the address from which quotation already has been made, he said:

"It is not likely that I shall forget the main incidents of my first visit to him now nearly eight years ago. Early in 1912 the Institute had secured options on its present magnificent site of fifty acres bordering on the Charles River Basin in the heart of Greater Boston. At this time I visited the principal of Mr. 'Smith's' plants. Mr. 'Smith' himself was away, but I met a number of leading men in his business and spent a day in looking over the plant. I was greatly impressed with the evidences on all hands of interest in scientific methods, by the number and high quality of the scientific men who were employed not only as technical experts but as executives and by the careful plans that were made for utilizing scientific improvements at every stage of the Company's growth. This evidence of high intelligence everywhere and of appreciation in an unusual degree of the value of scientific men suggested to me that Mr. 'Smith' himself might be interested in Technology. Consequently on his return I wrote to him telling him something of our problems and indicating that I would welcome an opportunity of explaining them more fully at a personal conference. He replied suggesting a date for our meeting and we dined and spent an evening together in New York going over the whole matter carefully and making the best estimates that were possible at that early stage as to the probable cost of the various portions of our undertaking. At this meeting, as at many another since, I could not fail to be impressed with Mr. 'Smith's' capacity to go to the heart of a problem quickly and see immediately what the main points are and to keep to those points in later discussion. He was interested in Technology's problem, but made it clear that his continued interest would depend on its problems being attached in a bold way and in a liberal spirit. He, like Mr. du Pont, believed that Technology had only to embrace its destiny to rise to a position of transcendent usefulness and his only anxiety has been lest at any time narrower views should prevail."

Altogether the gifts of Mr. Eastman to the Institute have amounted to eleven million dollars; and because of this princely generosity itself, because of the liberality on the part of others which Mr. Eastman has done so much to inspire, because of the generous loyalty of its alumni, notably the du Ponts, and because of the receipt of such bequests as that of half a million from Mrs. William B. Rogers, of nearly a million from Mr. Charles H. Pratt, and of eight hundred thousand dollars from Mr. William B. Greene, the total property of the Institute which, when Dr. MacLaurin became President, was valued at only four million is today computed at over \*twenty-six million dollars — an increase in less than eleven years of 650 per cent. Through the recent raising of an endowment fund of eight million dollars, of which Mr. Eastman has given one-half, the total sum upon which the school may depend for free income apart from fees is not less than fourteen million dollars and it is immediately possible therefore, to raise materially the salaries paid to the instructing staff and to retain, despite the many financial temptations outside the teaching profession, men of the calibre needed to keep the Institute in the forefront of education.

*\*\$26,000,000 is our book figure today, with \$2,500,000 of the Endowment Fund to come.  
H. S. F.*



In the dazzling light of this central performance, of this notable reaching in so short a time of the third great goal of the Institute, one must not lose sight of the many other achievements of the school under the leadership of its latest president. Almost immediately upon coming to Technology Dr. Maclaurin had to take up the delicate and difficult task of persuading the legislature of Massachusetts to renew the annual grant which had been made continuously since 1896, but which would expire after 1910. Organizing a devoted group of workers, skilfully enlisting the active interest of one or more past students in practically every town of the Commonwealth and presenting the case of the Institute with conviction to the several committees of the Great and General Court, Dr. Maclaurin succeeded, against somewhat formidable opposition, in securing a grant of one hundred thousand dollars a year for ten years. It was made clear by him and by others that the benefit to the State from the Institute itself and from the activities of those whom it has trained fully justified this generous subsidy. When, eight years later, a change in the Constitution of the Commonwealth made appropriations for privately controlled institutions impossible, Dr. Maclaurin made successful contention, through personal and legal representation, that the grant of 1911 having been in effect a ten-year contract between the Commonwealth and the Institute, did not come within the meaning of the constitutional prohibition. This viewpoint has been accepted by the legislature and the grant has been made this year and will be next year.

Soon after coming to Boston, Dr. Maclaurin took up with President Lowell of Harvard University the problem of bringing the engineering teaching of the two institutions into such co-operative relations as would avoid needless and wasteful duplication, while preserving the full autonomy of each. The earlier "merger" of the schools had failed because of widespread opposition and because of legal obstacles; but it was the belief of the two presidents that some other arrangement could be brought about which would avoid both objections. So a plan was devised and adopted under which students of Harvard University desiring to pursue courses in engineering should be taught mainly at the buildings of the Institute by a joint staff of Harvard and Technology professors, each professor answerable to the institution from which came his compensation, but the courses of study being under the immediate direction of the President of the Institute. Successful candidates in this joint course were to receive, if they so desired, the degree of Harvard in addition to that of the Institute. This arrangement permitted Harvard to make immediate use of the much discussed bequest of Gordon McKay, made available needed funds to the Institute and avoided, as already stated, the costly duplication involved in carrying on parallel courses in engineering at two neighboring institutions. The plan worked admirably as long as it was permitted to continue; but its validity having been challenged and the question having been carried to the Supreme Court the decision of that body was adverse.

This failure of the co-operative arrangement which had been so carefully and successfully worked out, was a great disappointment to Dr. Maclaurin, especially as the decision of the court rested upon purely legal grounds, the justices going out of their way, in the decision, to

commend the educational wisdom and economy of the existing plan. It was the hope of President Maclaurin that, through this joint use of the resources of the two institutions, there might be built up at the Institute a single school of engineering of ample wealth and transcendent power. Under the court's decision, however, Harvard must maintain a separate school of engineering, housed in her own buildings and taught wholly by her own staff.

This loss of joint income, the impending termination of the State subsidy, the rapidly rising costs of administration and the pressing need for advancing the salaries of the teaching staff made it imperative for the Institute to secure at once a substantial endowment and, in the spring of 1919, Dr. Maclaurin bent himself to the task. Hoping, with the generous promise of Mr. Eastman to give four million provided three million should be secured by the end of 1919 and an additional million before July 1, 1920, that these amounts might be raised without organizing a "campaign", such as many other colleges were carrying on, the President gave himself unstintedly to the onerous and unpleasant task of interviewing, under the advice and with the co-operation of a special committee of the Corporation, possible donors. Denying himself the customary summer vacation, he worked unceasingly for months; but, as the limit set by Mr. "Smith" approached, it became evident that only through organized effort on a large scale could the desired goal be reached in time. This campaign, under the general direction of the President and of General du Pont, chairman of the special committee of the Corporation, was placed under the immediate chairmanship of Merton L. Emerson, '04, on October 17, 1919. The pledges of three million dollars necessary to secure Mr. Eastman's munificent gift, were obtained sixty days thereafter, and on January 9, 1920, one day before the annual dinner of the Alumni at which it had been promised that—should the sum be raised—the secret of Mr. "Smith's" identity would be revealed, the entire four million dollars (making with Mr. "Smith's" equal gift, an endowment of eight million dollars) was secured.

Over an eighth of this splendid sum is made up of pledges from industrial corporations. The development of this new source of strength to the Institute is interesting and represents an added debt to the wisdom and foresight of President Maclaurin. As far back as the campaign carried on in 1910 to secure aid from Massachusetts, it had been emphasized that the Institute might be of even greater service than it then was to the Commonwealth and to the Nation were the industries to avail themselves of its laboratories, its teachers and its research staff in helping to solve their complex problems, and were the State and Federal bureaus to utilize the expert advice of such an institution in working out the many engineering questions with which public bodies are ceaselessly confronted.

Special committees were appointed and tentative steps were taken to bring about closer relations of service between the Institute and the public; but it seemed that the general mind was not quite ready to give effect to these admirable plans. Continuously thereafter, essays towards such mutually helpful relations were being undertaken by Technology, notably through the establishing, in 1914, of a definite course in Engineering Administration, through the successful revival of a co-operative plan

(attempted some years before) for conducting a course in electrical engineering in which the students spend their time partly at the Institute and partly in the Lynn works of the General Electric Company, and through the broadening of the course in Industrial Chemistry by extending it to five years and by giving the students opportunity to spend at least a year in research on a large scale in the actual plants of four or five great establishments covering, among them, substantially all the fundamental problems of this rapidly developing field of applied science. It is now a humorous, as well as an agreeable fact to contemplate that the three hundred thousand dollars needed to assure this co-operative plan was solicited from and willingly given by Mr. Eastman without the faintest hint on his part or on that of Dr. Maclaurin that, as Mr. "Smith", he was already contributing millions to the upbuilding of the Institute.

But a far broader test of the Institute's willingness and ability to be of public service was to come through the entrance of the United States into the World War. Immediately upon the taking of that momentous step, President Maclaurin placed the entire establishment at the disposition of the Government and, until long after the armistice, its large new plant, fortunately completed in time for this unlooked-for service, was in effect a great training camp, not only for such of its own students as could be persuaded to defer enlistment until, through a longer period of study, they might be of higher value to the army or navy, but also for a continuously renewed host of youth sent by the Government from all over the United States for training, mainly by the Institute's own staff, in the "ground" schooling of men destined for the aviation service, chiefly in the navy, but partly, also, in the army. Moreover, large classes in navigation and in marine engineering were carried on for the recruits so urgently needed to man the ships which the Country was hastening to build; and important experiments in many lines, notably in chemistry and aeronautics — not a few of them of the most confidential character — were conducted within the Institute's buildings and grounds.

From the early winter of 1916-17, when the United States was feverishly anticipating entrance into the War, until the close of the Summer of 1919, when at last the work of the Institute began to approach again its normal channels — though with numbers appalling to contemplate — the task of a college executive was not only enormously increased, but was surrounded by new problems of the utmost complexity. Especially was this the case at the Institute, for the World War was essentially a conflict of engineers. Because of this, the teaching staff was, and long remained, alarmingly depleted by the immediate entrance of these trained men into effective military and civilian service; the undergraduates were torn between the fever to enlist and the knowledge that, by finishing their courses, their value to the Country would be much enhanced; to keep going at all it was necessary to reorganize the work so that it might include a large measure of military drill and to turn the Summer Surveying Camp at Machias into a training camp; to accommodate the great number of youth sent by the Government, temporary buildings had to be erected and existing buildings converted to new uses; the time of those of the faculty who remained in teaching service

had to be divided between the Institute's students and these embryo soldiers from outside; money for all this emergency service had to be found; the eccentricities of the Washington government, distracted by the magnitude and immediacy of the great task of waging a new kind of war on the other side of the Atlantic Ocean, had to be patiently reckoned with and successfully harmonized, usually through a visit to the capital; and every moment some new question brought forward by the turmoil of vast war preparation had to be met and solved. No one not within the whirlpool of that fearful time can form any conception of the difficulty of keeping one's judgment clear and of steadying the emotions of others throughout that hectic period; and the problems and emotions of a great body of youth upon whom was to fall the main responsibility for action in the field were, of course, the most complex of all.

Not content with holding the helm of the Institute true throughout this stormy era, Dr. Maclaurin felt it his duty to perform an even larger service: that of working out, as chairman of the committee established to assist the War Department in putting into effect the plan for a Student Army Training Corps, the double problem, first, of providing as rapidly as possible the officers which another year of war would imperatively require, and, second, of saving from bankruptcy hundreds of teaching institutions which, bereft by the War of both students and supplementary income, were on the brink of dissolution.

The armistice came before the Student Army Training Corps got fairly under way, the influenza epidemic of the fall of 1918 brought the work almost to a standstill and the action of the War Department in issuing sudden orders to stop the undertaking precluded giving the scheme even one year's test; so that there is great prejudice throughout the Country against the project to which Dr. Maclaurin and his colleagues gave so much time and thought. But that this thought was sound and that, so far as he was permitted to work unhampered, his activities were well directed and would have been — had the project not been snuffed out — effective, there is practically no doubt. The strain of working under such adverse conditions and the physical fatigue involved in spending the hot summer of 1918 travelling between Washington and Cambridge, keeping his two great responsibilities in progress, were too much for any man and may have played a large part in the subsequent tragedy of his untimely death. The civilian victims of devotion to the cause of the World War are no less in number than the military ones.

These major public services and other, lesser excursions of the Institute into the realm of industrial activity, having been either initiated or actively supported by President Maclaurin, he was, of course, quick to realize the possibility of seizing upon the Endowment Fund as a means of bringing Technology into closer bonds of mutual helpfulness with the leading industries, in the executives of which the experience of the World War had greatly quickened the sense of obligation to technological institutions and realization of the importance of technically trained men. Therefore, in the campaign already referred to, there was presented to many industrial corporations a simple form of contract under which it was agreed, on the one hand, that the industry would contribute a modest sum to the Institute for a series of years and, on the other, that the Institute would undertake to advise the corporation, from time to time,



as to the solving of pressing problems involving applied science. As has been stated, more than a million dollars was thus pledged and the Institute has already created a Division of Industrial Co-operation and Research, with which men of high training in the several fields of industrial activity are being associated, to enter into intimately helpful relations with the contributing bodies. It is difficult to exaggerate the future possibilities for good of such a partnership as this.

Dying suddenly in middle life and at the height of his usefulness, President Maclaurin left, nevertheless, a full and splendid record of achievement. In less than ten years he gave to his previous reputation as scholar, teacher and administrator an added lustre and, in doing so, established at the Institute of Technology a new era. In that brief period, shortened and complicated by the agitations of the World War, he had led the great institution in the taking of its third step forward, the step needed to place it securely in a position from which the outlook for achievement is bounded only by the as yet unmeasured heights of science, by the thus far unrealized possibilities of development through education, by the seemingly limitless creative power of a devoted company of scholars dealing wisely with a great body of eager and selected youth.

To this noble task, so rapidly and so faithfully wrought, Maclaurin brought a mind singularly clear and tenacious of the right paths of thought, a personality at once masterful and gracious, with a dry humor typically Scotch, a love of youth beautifully exemplified in his relations with his own two boys, an enthusiasm for the principles of teaching laid down by Rogers and amplified by Walker and a directness of action and simplicity of statement most convincing to those seeking to use their wealth for the furthering of sound education. Maclaurin knew, as few men do, when to listen and when to talk; he had little of the oratorical in his speaking, but left his hearers certain and convinced as to the matter of his argument. He had the reserve of the scholar and of the Britisher; yet was never lacking in courtesy or, when the occasion warranted, in buoyant geniality. He regarded his duties with seriousness and emphasized the substantial rather than the ornamental responsibilities of a college presidency. He seized every proper opportunity to mingle with the world of practical men, as well as with that of the learned. Everything that he did was permeated with a zeal for public service and for the spiritual, as well as the material well-being of his fellowmen; and in all that he undertook he found a willing coadjutor, a strong supporter and a gracious helper in the wife who, transplanted from far New Zealand to bleak New England, not only flourished as though native to the new environment but, like all strong organisms, grew finer and more lovely with the enrichment of opportunity for service.

The mere sum of years counts for little if the half-century has been crowded with achievements that would have made remarkable twice that length of life; the measure of accomplishment is not the years themselves, but the fruitage of those years. Doubtless had another quarter-century of activity been vouchsafed President Maclaurin, he would have added notably to the splendid record of the ten spent in devotion to the Institute. And it seems an irony of fate to have snatched the opportunity for creation from the builder at the very moment when, with infinite

labor, he had established the unshakable foundations of a vast educational edifice the height and breadth and glory of which no present eye can foresee. Yet seriously as the Institute itself is bereft and cruel as is the loss to those deprived of his singularly tender love and care, it is, nevertheless, not a life cut off, but a life-work fulfilled, that all of us contemplate, proudly and gratefully, in the more than thirty years given to education and in the ten years' share lavished upon the Massachusetts Institute of Technology by that zealous, devoted and remarkably effective officer of the forward-marching army of civilization, Richard Cockburn Maclaurin.

## RESOLUTIONS BY THE ALUMNI COUNCIL

THROUGH the sudden and deeply lamented death of Dr. Richard Cockburn Maclaurin, on January the fifteenth, there was taken from the world of science a conspicuous member, from the United States an eminent son by adoption, and from the Massachusetts Institute of Technology a far-seeing and constructive leader.

Called to the presidency of the Institute in 1909, Dr. Maclaurin at once applied his keenly analytical mind, trained in both science and the law, to the solution of its most immediate problems—the securing of a physical location which would permit of material expansion and the acquisition of an endowment proportioned to its needs and opportunities.

The conspicuous success of the Institute in solving these problems under President Maclaurin's leadership is evidenced by the splendid group of buildings upon the Charles River Basin, by the generous endowment completed far in advance of the appointed time, just before his tragic death, and by a student body of a size, character and international quality responsive to these greater opportunities.

The fine, well-adapted buildings made possible by the munificence of such men as Mr. Eastman and General duPont, and planned and erected under the personal supervision of Dr. Maclaurin, together with the many other liberal gifts and bequests that, in ten years, have swelled the resources of the Institute, are the outstanding achievements which will always signalize his remarkably successful presidency. But they should not overshadow, in memory, the conspicuous contributions made during Dr. Maclaurin's administration, largely through his influence, to the enriching of the Institute's curriculum, the broadening of its methods of teaching, and the widening of the school's influence and fame.

Highly characteristic of President Maclaurin was the whole-heartedness with which he not only placed the resources of his great institution at the command of the Government before and during America's service in the world war, but also threw himself into that service regardless of personal comfort and the limitations of his physical strength. He well may be counted among the great soldiers and martyrs of that strenuous time.

A master of physics, logic and administration, Dr. Maclaurin was a man of rare, well-balanced nature,—broad and thorough, fearless and strong. Of charming personality, he won the confidence, respect and affection of all.

For his rare qualities and noble services the past students of the Massachusetts Institute of Technology are profoundly grateful; and through their mouthpiece, the Alumni Council, they herewith express their proud appreciation of the fact that as Rogers was the great Founder, and Walker the militant Preserver, so Maclaurin was the far-seeing Developer of this leader among technological schools. Taken from his work at the summit of his powers, he has left a legacy of material strength and spiritual authority which places upon the Corporation, the

Faculty and the Alumni, opportunities and responsibilities that, before his presidency, were beyond imagination.

In making formal record of its appreciation of the work of Richard Cockburn Maclaurin, its gratitude for his high service to the Institute, and its profound sympathy with the wife and the sons who have lost even more than has the school itself, the Alumni body pledges itself to honor that noble name, to pay as far as possible that incalculable debt, and to make real that respectful sympathy, by undertaking its full share in building to ever higher power and usefulness the Institute, which will be for all time Maclaurin's greatest monument.

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## TECHNOLOGY AND THE RHODES TRUST

"It is a sign of the times as related to education that the headquarters of the Rhodes scholarships in this country is the Massachusetts Institute of Technology and that a professor of that institution has been chosen as secretary to the Rhodes trustees. Moreover the requirement of Latin and Greek has been abandoned and selections are now made solely on the record of the candidates in school and college. Massachusetts Institute of Technology has international reputation for its standard of technical training; it has considerable of an international student body, this year the enrolment of students from foreign lands numbering two hundred and three. The choice of the Institute as Rhodes headquarters is appropriate, but it does break from classical, educational traditions."



## ELIHU THOMSON ACTING PRESIDENT

### Will perform merely nominal function

PROFESSOR ELIHU THOMSON of Swampscott, chief consulting engineer of the General Electric Company, has been appointed acting head of the Massachusetts Institute of Technology, to occupy that position until a successor is chosen for the place made vacant by the death of Richard Maclaurin. He would not consider permanent occupancy of the position, because he felt that a younger man is needed. Furthermore, he is at present working on a number of important electrical projects that demand a large share of his time. In his opinion the trustees of the Institute will be a long time in finding a man of the calibre of the late President Maclaurin, and they doubtless will be satisfied with one of no less ability.

"My work will be to sign necessary papers for carrying on work at the Institute," he said. "There are diplomas and other important documents which must be signed, and there is no predicting when a successor to the late President Richard C. Maclaurin will be chosen. It may be many months, and I have no desire to take the office for a life job."

Professor Thomson is credited with more than 500 inventions, among them being that of electric welding. He was born in Manchester, England, March 29, 1853, the son of Daniel and Mary A. (Rhodes) Thomson. He was brought to this country by his parents when he was five years of age. His father was a skilled engineer and machinist. From the paternal side he inherited mechanical skill, and from his mother's side similar though marked endowments. The Thomsons settled in Philadelphia, and there Elihu Thomson entered school when he was seven years old. When he was eleven he was ready for high school, but as the age limit was thirteen he was forced to wait two years. He turned his hand to mechanics, built models, dabbled in photography, evinced interest in everything that was baffling. One day a friend of the family gave him a book describing electrical experiments. Soon he had an electrical machine with a wine bottle for a cylinder, and followed his experiment with Leyden jars.

He made a Morse telegraph circuit, alone and unaided, insulating the wire with wrapping cord. Where and how he got the wrapping cord would be a human interest story in itself. Entering the high school he took the prescribed course, and his leisure time was devoted to experiments. In 1878 he was graduated, and the following six months were devoted to work in an analytical laboratory. Then he was called to assist in the chemical department of the high school. In 1878 he was made a full professor of chemistry and physics, when he was but twenty-three years old.

During the winter of 1875 and the following spring he was instructor of chemistry in the Artisans' Night School, and the following winter

he gave a series of lectures before the Franklin Institute. Never did his duties weigh so heavily that he could not spare time to conduct experiments. He constructed during that time a practical dynamo, which had several features to be found in dynamos subsequently constructed by other inventors. He constructed a pipe organ, with electro-pneumatic key action, making all the parts himself. He found time for lathe work in metal, lens grinding and speculum work. He built a compound microscope and numerous electrical devices.

It was in a small machine shop at 313 Buttonwood Street, Philadelphia, where the first dynamo was built, Mr. Thomson superintending the work and winding the armatures and field, the first lamps being hung in a bakery. Also late in that year he moved to New Britain to become electrician of the American Electric Company, which had secured control of the Thomson-Houston patents. In 1882 the organization was succeeded by the Thomson-Houston Electric Company, which established a plant in Lynn, and united with the Edison Company in 1892 under the title of the General Electric Company, which is now the largest producer of electrical machinery in the world. As the Company grew, so did the fame of Professor Thomson spread. In the old world he became as well known among the men of genius as in this country. He is a member of the American Philosophical Society, the American Academy of Arts and Sciences, the Society of Arts, Franklin Institute, American Association for the Advancement of Science, past president of the American Institute of Electrical Engineers, Institutions of Civil Engineers of London, Boston Commercial Club and other organizations. For his genius he was decorated in 1889 by the French government as chevalier of the Legion of Honor.

The honorary degree of master of arts was conferred upon him by Yale in 1890, and that of Ph.D. by Tufts in 1894. He has contributed to many scientific journals, and one of his earliest articles, "Electrical Welding," read before the Boston Society of Fine Arts in 1886, was translated into many languages.

Of Professor Thomson's appointment the *Boston Transcript* said editorially:

"Since corporate form must be fitly observed, even by educational institutions; and since, after all, rank is rank, taking a certain prominence in the present and remaining as a fixed mark for posterity's notice — it is well that the Massachusetts Institute of Technology should have been able to secure, even for titular headship, such a man as Elihu Thomson as acting president. Known the world over for its owner's attainments in the field of science, his name will carry greatly appropriate character wherever it now comes to appear in the Institute's official records. In the list of those who have held Technology's presidential authority, it will always stand in dignity and in fine balance.

"'Titular headship' the appointment is strictly called. Mr. Thomson would not accept more. Under the pressure of scientific and manufacturing labors which already overburden his time, he could not undertake to do more in the acting presidency of Technology than set his name to such papers as may require the president's signature. And to this the direct obligations of his present appointment are admittedly limited. Yet even in this connection it is essential to

remember that Mr. Thomson will continue to hold the membership in the Institute's executive committee — 'the President and Fellows' of Technology — which for ten years he had filled in a spirit of devoted service and with large benefit to the Institute. His activity continuing there, the fundamental importance of Mr. Thomson's contribution to Technology's welfare seems very plain, despite the formal nature of his new and additional office."

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## CHILE-AMERICAN SCHOLARSHIP AT MASSACHUSETTS INSTITUTE OF TECHNOLOGY

THE Chile-American Association, which was organized in 1918 for the purpose of promoting good relations between Chile and the United States, has adopted a concrete measure as part of its general program, by establishing a mining scholarship at Massachusetts Institute of Technology. The scholarship includes both mining and metallurgy. A considerable number of Chileans now come to the United States to pursue technical and scientific courses with a view to fitting themselves for industrial careers. Since the great war there has been a marked increase in the number of young Chileans who look forward to work of this character.

Taking note of this condition the association, in adopting the policy of establishing scholarships at the educational institutes of the United States, has begun with the establishment of the Chile-American Association Mining Scholarship at the Massachusetts Institute of Technology. The scholarship embraces both mining and metallurgy. Definite and liberal financial provision has been made for a full three years' course at the Institute leading up to a grade degree. A sufficient sum has been appropriated to cover travel expenses and the student's maintenance.

With a view to affording equal opportunity to ambitious and deserving young Chileans, who have decided to follow mining as a career, the selection is to be made by competitive examination from among recently graduated students of Chilean mining schools. A sufficient sum is also appropriated to cover travel expenses and the student's maintenance for three years. The administration of the scholarship will be under the direction of the members of the Association in the United States in co-ordination with the Ambassador of Chile in Washington.

The members of the Chile-American Association are: American Smelting & Refining Co., American International Corporation, Bethlehem Chile Iron Mines Co., Chile Exploration Co., Braden Copper Co., Chile Steamship Co., Andes Copper Mining Co., Santiago Mining Co., E. I. duPont de Nemours Export Co., International General Electric Co., Ingersoll-Rand Co., W. R. Grace & Co., Singer Sewing Machine Co., J. P. Morgan & Co., National City Bank, Errazuriz Simpson & Co.

## ADMINISTRATIVE COMMITTEE TO MANAGE M. I. T.

### Faculty and Corporation co-operate in executive work

No acting president is to be appointed to fill the vacancy caused by the death of Doctor Maclaurin, except in so far as a nominal appointment is necessary for legal signatures, according to a decision of the executive committee of the corporation, made public through Everett Morss. Instead, two special committees have been appointed to handle the administrative functions of the Institute.

This arrangement will continue at least until the end of the present school year in June when the executive committee will again take up the matter.

At the last meeting Frederick P. Fish of Fish, Richardson & Neaves, attorneys, senior member of the executive committee, was elected chairman of that body, and a sub-committee was elected consisting of Everett Morss, president of the Simplex Wire and Cable Company, chairman; Francis Hart, vice-president of the Old Colony Trust Company and treasurer of the Institute, and Edwin S. Webster of Stone & Webster.

The function of this committee will be to keep in touch with affairs of Tech and co-operate with the faculty and officers of administration.

An administrative committee which will be charged with those duties ordinarily performed by the president in relation to internal and educational affairs was also appointed at the meeting of the executive board. The members of this newly created committee shall have equal responsibilities, and they have been instructed to select a chairman from their own number.

The administrative committee was at first made up as follows: Dr. Henry P. Talbot, chairman of the faculty and head of the chemistry department; Professor Edward P. Miller, head of the department of mechanical engineering, and Dr. William H. Walker, director of the newly instituted division of industrial co-operation and research.

Dr. Walker, however, resigned shortly after his appointment, as the work of the new Division of Industrial Co-operation and Research is taking all his time. Professor E. B. Wilson, head of the department of physics was appointed in his stead.

It is the belief of the executive committee that its sub-committee working in close association with the administrative committee will make it possible to carry on the work of Technology without any interruption and with complete harmony and effectiveness.



## MEETINGS OF THE ALUMNI COUNCIL

THE seventy-fifth meeting of the Alumni Council was held on Friday evening, February 27, 1920 in the Walker Memorial, Cambridge, Mass. The usual informal dinner was served at 6.30 p.m. with an attendance of twenty-two. Mr. I. W. Litchfield, '85, was Salad Orator. The meeting was called to order at 7.45 p.m. in the absence of the president, by the vice-president, George L. Gilmore, '90, with an attendance of twenty-seven.

The business on the call for the meeting was: Report of Committee on Resolutions: Shall the vote to hold the All-Technology Reunion next June be reconsidered? Report of Technology Clubs Associated convention to be held in Philadelphia. In the opinion of the members of the Alumni Council should the Institute diploma remain as large as at present or be reduced in size? A new plate has to be designed.

The records of the last meeting were read and approved.

The Chairman announced that the Executive Committee at the meeting prior to this meeting had elected George Eastman, Esq., an honorary member of the Alumni Association.

Mr. Gilmore, as Chairman of a special Committee on Resolutions presented the resolutions prepared on account of the death of the late President of the Institute. (These resolutions are published elsewhere in this issue of THE REVIEW.) The resolutions were adopted unanimously by a rising vote. In connection with a communication from the Executive Committee concerning resolutions and recommendations for memorials for the late President of the Institute, it was

*Voted:* that the Chair appoint a committee of five to consider the question of a memorial for the late President and report to a later meeting of the Council.

Membership of this committee is Henry A. Morss, '93, chairman; A. Farwell Bemis, '93, Francis R. Hart, '89, James W. Rollins, '78, and Edwin S. Webster, '88.

Upon the recommendation of the Executive Committee it was

*Voted:* to reconsider the question of a Reunion which has been voted for June, 1920.

It was moved that the Reunion proposed for June, 1920, be postponed, but this motion was lost.

Upon motion duly made and seconded, it was

*Voted:* that a committee be appointed by the Chair to consider plans for a Reunion in 1920 appropriate to the present situation and to report to the Council at a meeting to be held in March.

Membership of this committee is Mr. Kenneth Moller, '07, chairman, Merton L. Emerson, '04, Grosvenor D'W. Marcy, '05, A. D. Little, '85, I. W. Litchfield, '85, John M. De Bell, '17, and Everett Morss, '85.

Plans for the convention in Philadelphia of the Technology Clubs Associated were presented by Mr. I. W. Litchfield, who had been to Philadelphia to review the plans with the President of the Technology

Clubs Associated, Dr. Hollis Godfrey. Questions were answered by Mr. Pearson, guest of the Council at this meeting, an assistant to Dr. Hollis Godfrey.

The question having been raised by the Registrar of the Institute concerning the opinion of members of the Council as regards the size of the Institute diploma and because there is need of having a new diploma, it was the sense of the Council that the Institute diploma need not be as large as at present. This was voted unanimously.

The guest of the Council for this meeting was Professor William Emerson, the new head of the Department of Architecture. He had been invited to meet the Council and he was called upon by the Chairman, Mr. Gilmore. Professor Emerson addressed the Council and welcomed the opportunity to meet representative Alumni and spoke of the needs of the Department of Architecture. He was most cordially received.

When the meeting was thrown open for new business, Mr. Merton L. Emerson, '04, spoke on the desirability of extending the activity of the Alumni Association and developing its usefulness by means of having, it was suggested, a Director. This introduces a large problem and upon his suggestion, it was

*Voted:* that a committee of three be appointed by the Chair to review plans for the development of the Alumni Association.

The membership of this committee is Merton L. Emerson, '04, chairman, Bradley Dewey, '09, and Leonard Metcalf, '92.

There being no further business, the Council adjourned at 9.15 P.M.

### MARCH MEETING

The seventy-sixth meeting of the Alumni Council was held in the Walker Memorial on March 15, 1920. In the absence of the president, the vice-president, George L. Gilmore, '90, presided.

The first business of the meeting was the nominations for the advisory councils. It was

*Voted:* that the Chair appoint a special Nominating Committee to make nominations for membership on the Undergraduate Advisory Councils. Membership: Denison, De Bell, Lobdell.

The question in regard to making a charge for the publication of the "Register of Former Students" was presented. During the discussion, it was pointed out that since this is a publication much desired by the Alumni, it seemed reasonable to attempt to defray the charges of publication by the Institute. Upon motion duly made and seconded, it was

*Voted:* that it is the sense of the Council that a charge of one dollar should be made for copies of the "Register of Former Students."

It was suggested that if a charge were made by the Institute, it might be possible to publish a supplement annually and to include in this supplement the names of the graduating class.

The Chairman raised the question of raising of funds by the Graduating Class. It was stated that Mr. A. T. Bradlee, '88, had called to his attention the fact that at some colleges the outgoing class insures itself in a body, or individually, to provide the payment of a large amount of money to the college upon the basis of a twenty-year endow-

ment policy. There was some little discussion but no action was taken.

The Chairman mentioned the meeting of the Technology Clubs Associated at Philadelphia and urged all those who could to attend this meeting.

Upon motion duly made and seconded, it was

*Voted:* that the regular meeting of the Council which would fall upon the last Monday of March be omitted because of this special meeting.

A report was presented from the Special Committee on Reunion appointed at the last meeting. After discussion it was

*Voted:* that a Reunion on the lines suggested by this committee be held in 1920.

Upon motion duly made and seconded, it was

*Voted:* that it is the sense of the Council that the Reunion be held in the latter part of June, if practicable.

Upon motion duly made and seconded, it was

*Voted:* that a committee of five be appointed by the Chair to have charge of the Reunion.

Upon motion duly made and seconded, it was

*Voted:* that it is the sense of this meeting that the plan outlined by Dr. Little for an Industrial Conference at one session of this Reunion should be carried out by the committee.

There being no further business, upon motion duly made and seconded, it was voted to adjourn. Adjourned at 9.00 P.M.

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## A BILLION SAVED

IN the course of an appeal for support of its campaign to raise \$4,000,000 for its endowment fund, the Massachusetts Institute of Technology makes the statement that over one billion dollars is annually "saved" for the United States as a direct result of the work done by research laboratories in all parts of the United States.

We would be inclined to think that, if anything, the writer of the circular from which this statement was taken erred on the side of conservatism; although a billion is a fairly large amount even in these days when even the financial tyro is no longer staggered by long lines of cyphers, we would be tempted to place the value of research even a little higher.

And that many American firms have recently come to appreciate the benefit of research in industry is shown by the success attained by the so-called "Technology Plan," whereby corporations by means of retaining fees are enabled to avail themselves of the services of the experts on the Massachusetts Institute of Technology's staff.

—*The Chemical Age.*

# CONSTITUTION OF THE ADVISORY COUNCIL ON UNDERGRADUATE PUBLICATIONS, ADOPTED JANUARY 22, 1920

## PREAMBLE

TEN years ago, at the request of the Institute Committee, an Advisory Council on Undergraduate Publications was formed by the Alumni Council of the Alumni Association. With minor changes in organization, this Advisory Council has continued with the general object of serving as a connecting link between the specified undergraduate activities, and the Alumni body, and with responsibility to the Institute Committee, acting as an advisory body, and in a measure as a check on the student activities within its scope.

In order to define its powers and responsibilities, and to clarify its relation to the Alumni Council, the Institute Committee, and the various activities concerned, the present Council has drawn up the following principles governing its relation, and has adopted the following Constitution, which will be considered effective when approved by the Institute Committee, and by the Executive Committee of the Alumni Association.

## PRINCIPLES

(a) The Alumni have a direct interest and a right to a voice in the management of any student activity that trades on the good-will of the Institute as a whole, and in which the good name of the Institute might be compromised by poor management. This principle is recognized in the formation of the various existing Advisory Councils, and is especially important in the case of activities such as Undergraduate Publications, which depend for their advertising on giving the impression to the business public that they are responsible activities officially recognized by the students and Alumni as such.

(b) The Alumni claim no right or desire to interfere in any student activity not involving the principle outlined in (a), except in so far as their advice may be requested, or proffer of it appear to be in order.

(c) In any matter between the Alumni and undergraduate activities where procedure has not been charted by sanction of the Institute Committee, contact with the activity involved should be through the Institute Committee, which is recognized as the responsible and authoritative body representing the whole undergraduate body.

(d) In undergraduate activities which are recognized by the Institute Committee as legitimate Institute activities, the principle should be strictly adhered to, that no profit-making activity should be run for the private profit of the students involved, that surpluses should be used first to place the activity itself in the highest condition of effectiveness, and beyond that should be disposed of as the management of the activity and its Advisory Council may agree.



## CONSTITUTION

*Article 1*

The name of this body shall be the Advisory Council on Undergraduate Publications, hereinafter referred to as the Advisory Council.

*Article 2*

Section 1. Object: The object of the Advisory Council shall be to assist in any way possible all undergraduate activities coming within its jurisdiction. It is assumed that it will serve only in an advisory capacity, unless some principle in the preamble to this Constitution is involved.

Section 2. The Advisory Council may act as trustee for funds created for the benefit of activities within its jurisdiction, the method of handling such funds to be treated in detail in the By-Laws.

*Article 3 — Jurisdiction*

The Advisory Council includes in its jurisdiction only such undergraduate activities as have been recognized by the Institute Committee and meet the requirements of the By-Laws of this Constitution.

*Article 4 — Organization*

Section 1. Membership: The Advisory Council shall consist of five members chosen by the Alumni Council after a conference between their Special Nominating Committee and the Executive Board of the Institute Committee. Membership shall be for a term of five years, one member retiring and a new member being elected each year.

Section 2. Chairman: The member who is senior in point of service on the Advisory Council shall be its chairman, unless other action is taken by the Council. It shall be the duty of the chairman, in addition to the duties usually pertaining to that office, to see that effective contact is maintained by the Advisory Council with the various activities within its jurisdiction, with the Institute Committee, and with the Alumni Association, through its secretary. It shall be the further duty of the chairman to keep proper account of any Trust Fund or property vested in the Advisory Council, and to see that proper report thereon is made to the Alumni Council in January of each year.

Section 3. Secretary: The junior member in point of service on the Advisory Council shall act as secretary, performing the duties pertaining to that office, unless other action is taken by the Council.

Section 4. Representatives: The Chairman shall designate a member of the Advisory Council to act as a special representative to each of the undergraduate activities within its jurisdiction. It shall be the duty of such representative to keep closely in touch with the affairs of the activity assigned to him, and to report thereon to the Advisory Council or to its chairman. He shall not commit the Advisory Council in any matter of new policy without first having brought the matter before the Council or having secured the approval of the chairman.

*Article 5 — Amendment*

Section 1. Amendment to this Constitution shall only be made by vote of four-fifths of its membership, subject to approval by the Institute Committee, and by the Executive Committee of the Alumni Association.

A true copy.

G. D. MARCY,  
Chairman.

February 4, 1920.

## BY-LAWS

1. *Acceptance of Jurisdiction:* The Advisory Council will consent to act in an advisory capacity only to such activities as agree to meet the following requirements:

(a) The activity shall accept the principles in the Preamble of this Constitution, either by embodying them in its own Constitution or by a vote of record by its Managing Board, a copy of which vote signed by its officers shall be sent to the Advisory Council and to the Institute Committee.

(b) A copy of the existing Constitution of the activity shall be filed with the Advisory Council, and no new Constitution or amendment thereto, or amendment to an existing Constitution shall become effective after adoption until approved by the Advisory Council. The word "Constitution" in this connection is inclusive of By-Laws.

(c) A monthly financial statement showing the true financial condition of the activity, from its books, and as made to the Finance Committee, shall be sent to the Advisory Council.

(d) A copy of the minutes of all meetings of the Managing Board of the activity shall be sent to the Advisory Council.

(e) All elections to the Managing Board or officers of the activity shall be made subject to confirmation by the Advisory Council, after approval by the Institute Committee, with the provision that unless action is taken by the Advisory Council within two weeks of submission of elections for approval, it shall be considered that such election is confirmed.

(f) No departure from established policies or adoption of new policies, or incurring of unusual expenditure should be made without consultation with the Advisory Council.

(g) In any case of disagreement between the Advisory Council and an activity, appeal may be made by either party to the Institute Committee, whose decision shall be final.

(2) *Handling of Trust Funds:* (a) This Fund shall be known as The Tech Fund. It shall be in the custody of the Treasurer of the Alumni Association who shall make disbursements therefrom only upon written authority of the Chairman of the Alumni Advisory Council on Undergraduate Publications.

(b) Expenditures from this Fund shall be made for the benefit of *The Tech* only.

(c) The property now a part of this Fund shall be leased to *The Tech* at a yearly charge of twenty per cent of its book value, which

shall be paid in equal semi-annual installments on the first days of October and April.

(1) The income derived from this source shall become a part of the Fund.

(2) Income derived from the disposal of any property belonging to this Fund shall become a part of the Fund.

(d) Any action with regard to this Fund shall require a four-fifths affirmative vote of the Alumni Advisory Council on Undergraduate Publications.

(e) Requests on the part of *The Tech* for changes involving this Fund or its property shall be made on a form provided for the purpose by the Alumni Advisory Council on Undergraduate Publications.

(f) A four-fifths affirmative vote of the Alumni Advisory Council on Undergraduate Publications shall be necessary to effect a change in any by-law pertaining to this Fund.

3. *Quorum*: Three members of the Advisory Council shall constitute a quorum for the transaction of business.

4. *Meetings*: Stated meetings shall be held monthly, on the same day that meetings of the Alumni Council are held, at four-thirty P.M., unless otherwise called. Special meetings may be held at the call of the chairman.

5. *Amendments*: These By-Laws shall only be amended by a three-fifths vote of the Council, subject to approval by the Institute Committee and the Executive Committee of the Alumni Association.

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## OLDEST INSTRUCTOR IN FORGING AT TECH

IN the person of J. Richard Lambirth, instructor in forging and metal work, the Institute claims to have the dean of forge workers and blacksmiths in America.

Mr. Lambirth is seventy-two years old and has spent fifty-six years of his life at the forge and anvil. He has been head of the laboratory of forging at Tech for thirty-five years, and during all that time he has never missed a single regular class day. It is also said of him that he has never missed a weld.

Mr. Lambirth learned his trade at the Atlantic Works in East Boston, and in 1863 was employed at sorting and working scrap iron which went into making one of the famous monitors engaged in the Civil War. Then for fifteen years he was employed in the Salem car shops and by the Eastern railroad.

His oldest son followed in his footsteps and is now supervisor of manual training in the public schools of Cleveland. Another son is instructor of machine work in the Cincinnati schools. His daughter is married to Dr. Johnston, professor of pathology at Harvard University.

## THE WOMEN'S ASSOCIATION

### Report of annual meeting and activities

THE Massachusetts Institute of Technology Women's Association, started in nineteen hundred, for the purpose of promoting greater fellowship and unity among women graduates and past students, and of advancing the cause of education and the general welfare of women undergraduates, held its Twentieth Annual Meeting in the Emma Rogers Room, on Saturday, January 17, at twelve o'clock.

The following is the list of officers: Honorary President, Miss Susan Minns; President, Mrs. Charles W. Sawyer; First Vice-President, Miss Lois L. Howe; Second Vice-President, Miss Elizabeth F. Fisher; Recording Secretary, Miss Hattie L. Gates; Corresponding Secretary, Miss Grace Norris; Treasurer, Miss Annie F. Allen; Auditor, Miss Emma J. Fitz. Other members of the Executive Committee: Mrs. James H. Hancock, Miss Matilda A. Fraser, Miss Rebecca R. Joslin.

Any woman, graduate or past student of the Massachusetts Institute of Technology, is eligible for membership and may become a member upon payment of the annual dues. All communications should be addressed to the Corresponding Secretary at 10 Tudor Street, Chelsea, Mass.

Owing to the great loss that came to Technology, in the death of President Maclaurin, the luncheon which usually follows the annual meeting of the Association was given up. The following resolutions were spread on our records and copies were sent to Mrs. Maclaurin, to the Secretary of the Corporation and to the President of the Alumnae Association:

"We, the officers and members of the Massachusetts Institute of Technology Women's Association are profoundly grateful for the Divine Dispensation which enabled Doctor Maclaurin to carry his work so far in the comparatively short term of ten years.

"As he believed in the adequate education of women for advanced scientific and professional work, our peculiar loss is very great. This is a small part of the greater loss to the Institute and to the Nation. As a wise and just adviser, and interested friend, we shall miss him always.

"We offer to his family, to the members of the Corporation, and to our fellow Alumni our deepest sympathy in this grievous bereavement."



# THE WORK OF PROFESSOR EDWARD C. PICKERING AT THE MASSACHUSETTS INSTITUTE OF TECHNOLOGY, 1867-1877

BY PROFESSOR CHARLES R. CROSS, '70

*The Review considers itself fortunate to be able to publish the first of several memoirs promised by Professor Cross relating to the early days of the Institute and some of its trail-blazing in applied science. We hope to publish a second one in an early number.*

THE recent death of Professor E. C. Pickering, whose researches in astronomy, while Director of the Harvard College Observatory for forty-two years previously, have given him a foremost position among the scientific men of his generation, will call to the remembrance of all the earlier students of the Institute the important work in physics which he did here at the beginning of his career during the ten years in which he occupied the position of instructor and professor of physics. The story of this work is the history of the Department of Physics during that period. This is so important from both a scientific and educational point of view that it seems highly desirable that a somewhat detailed account of it should be put into an accessible form.

Professor Pickering was graduated from the Lawrence Scientific School with the Degree of S. B. in 1865. He was thereupon appointed Instructor in Mathematics in that institution, from which position he was called in 1866 to the newly established Massachusetts Institute of Technology to become an "Assistant Instructor in Physics." A year later he was made Assistant Professor of Physics, and in 1868, upon the withdrawal of Professor William B. Rogers from that position, Thayer Professor of Physics.

In notifying Professor Pickering of this latter appointment, President Rogers wrote as follows:

Lunenburg, July 29, 1868.

"*My dear Edward:*—The Committee of Instruction, at an unusually full meeting this afternoon, heartily endorsed my proposition to promote you to the place of Thayer Professor of Physics in the Institute, and their recommendation to that effect will without doubt be ratified by the Government next week.

"Considering this action as conclusive, I bid you a hearty and affectionate welcome to the chair, a part of which you have already so satisfactorily filled. Let me say that, with all the urgency of other Institute duties, I should be quite unwilling to relinquish it to any other successor, so much do I love its exercises, and so sure am I that under your direction they will preserve the breadth and practical character which it has been my aim to give them. . . ."

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an exceptionally long and thorough course of experimental lectures upon physics, including mechanics, which originally extended throughout the first three years of all the courses leading to a degree at the Institute. This preparation involved the familiarization of the teacher himself with the use and operation of a great variety of physical apparatus of demonstration.

Professor Pickering's exposition of his subject was masterly; the course which he laid out was for its day a model one for a technological school, and contained much that was not usual in a college course, his training in engineering serving him in good stead. Young though he was in years and appearance and extremely modest in speech, his clearness of exposition, success in experimentation and earnestness in endeavor to meet the needs of his pupils won at once their respect and regard. No discipline was called for, since every student recognized that his entire attention was expected and deserved. Nor was this because the students of that day were without spirit or models of good behavior, for some of the professors had rather a hard time of it.

During these early years of his teaching his mind was also set upon broadening out the range and character of the instruction.

Little, if any, opportunity had been offered in this country for systematic training in physics as a specialty, and indeed few of the professors of physics had received such training anywhere. To meet the needs of students wishing instruction beyond the ordinary lecture course Professor Pickering states that in October 1868, "a room was opened to advanced students where they carried on physical investigations, as is done by many physicists with their special students." But such work was usual only in Europe.

It was in this same year that the Physical Research Laboratory at the Sorbonne was opened, one of the earliest laboratories laid out primarily for systematic work of this character.

At this time the department received from Mrs. John M. Forbes a gift of the sum necessary to purchase a large spectrometer. The instrument was designed by Professor Pickering and made by the firm of Alvan Clark & Sons. It was of what came to be called the Littrow pattern and at the time of its completion was the most powerful spectrometer that had been constructed.

Throughout the year 1868 Professor Pickering gave much thought to a further project, and he completed the detailed preparation for a new work of far reaching importance as an advance in methods of teaching physics.

In the well-known "Scope and Plan of the School of Industrial Science of the Massachusetts Institute of Technology," published in 1864, Professor William B. Rogers, the founder of the Institute, set forth a new educational proposition. In describing the methods of instruction to be employed, under the heading "Practice in Physical and Chemical Manipulation," he says, "It will be the object of these exercises to make the student practically familiar with the adjustments and use of the apparatus and agents employed in the more important experiments and processes in natural philosophy and chemistry. With this view, the students, under the direction of their teacher, will be called, by small classes at a time, to execute with their own hands



various experiments in mechanics, pneumatics, sound, optics, electricity, and other branches of experimental physics, and to exhibit chemical reactions, to fit up chemical apparatus, to prepare gases and other products, and demonstrate their properties by suitable experiments, accompanying these manipulations, when required, with an explanation of the apparatus used, or of the process or experiment performed." And later in the same publication, under the heading "Laboratory of Physics and Mechanics," "In this laboratory it is proposed to provide implements and apparatus with which the student may be exercised in a variety of mechanical and physical processes and experiments. Thus he may learn practically the methods of estimating motors and machines by the dynamometer, of experimenting on the flow of water and air, or other gases, and of testing the strength of the materials used in construction. He may become familiar with the adjustments and applications of the microscope; be practised in observing with the barometer, thermometer, and hygrometer; and, in a room fitted up for photometry, may learn the mode of measuring the light produced by gas and other sources of illumination, and the value of different kinds of burners, lamps, and their appendages."

So far as has appeared this is the earliest clear suggestion of such a laboratory.

Professor Pickering realized the value of this plan even before he began his teaching of physics, and also realized the various difficulties which lay in the way of carrying it out effectively.

To its practical development he gave unremitting attention and during 1868 he devoted himself with great energy to the consideration of the problem as a whole and of the details which it involved. Individual students also "tested out" the experiments which he planned. He worked steadfastly through the winter and in April, 1869, presented to the Corporation of the Institute in a lengthy report the plan which he had developed, which was immediately accepted by it and published as a supplement to the Fourth Annual Catalogue. The proposition as a practical one was so unique that before presenting it, with its necessary demands upon space, the details had to be so well worked out that the feasibility of the plan could be made apparent to a body chiefly composed of practical business men. In the published pamphlet of sixteen pages just referred to a list of fifty experiments with much detail is given.

A moderate amount of room, soon afterwards considerably increased, was provided for the purpose and in October, 1869, at the beginning of the next school year the new laboratory was opened to the regular students of the Institute, all candidates for a degree being required to take the course of instruction given therein at the close of their lecture course. There were about twenty-five of these at the beginning.

In the laboratory record book under the date of the first exercise, Professor Pickering wrote, "Class began work in the laboratory, very successful."

The choice of the particular system to be employed in teaching presented many perplexities. The necessities imposed by the size of the classes compared with the limited instructing force were novel,

since the method which had been instituted and most successfully developed in the chemical laboratories of the school by Professors Eliot and Storer, where every student could be working at the same experiment at a given exercise, was obviously impracticable. Physical apparatus could not be duplicated indefinitely as could reagent bottles, test-tubes and flasks. The experiments had each to be given its own appropriate place to which the student, notified by a suitable indicator, should go. Apparatus had to be devised which should be simple in construction so as to be easily comprehended, and experiments planned such as could be completed in a period of a single hour or two hours at most. The experiments were almost wholly quantitative in their character. The question of cost was also a harassing one as only a very small appropriation could be made for the purpose, the funds of the Institute being painfully limited. Professor Pickering states that the cost was little beyond fitting up the laboratory room with tables and gas and water fixtures; most of which was done by the regular employees of the Institute. In fact five hundred dollars had to cover the total expenditure for the opening year.

Many simple pieces of apparatus designed by Professor Pickering were constructed by the local carpenter and some of them were made with his own hands. Numerous instruments were entirely original with him, some of which, reconstructed only in parts, are still in use.

In connection with the class of experiments under consideration, Professor Pickering "worked in" some instruction regarding the estimation of the value of one's results by probable error determinations and also various applications of the graphical method some of which were original with himself.

With the proved success of the laboratory method additional space was granted shortly and also a further, though very small, appropriation of funds that allowed the introduction of a greater practice with instruments of precision, which it was made possible for the students to use satisfactorily through the provision of a brief preliminary series of lectures upon physical measurements.

In 1871 Professor Pickering presented a report to President Runkle upon his work in the laboratory during the preceding two years, which contains an interesting account of the principles which had guided him and the results which had been reached up to that time.

In addition to the more elementary course of laboratory work just described there was also more advanced instruction introduced into the fourth year and given to certain classes of students. This was of a distinctly professional character. Of these exercises, Professor Pickering says, "A problem in practical physics is suggested to them [the students] which they are expected to work out experimentally, and report the results." The problems were in fact mostly individual brief researches of a simple engineering or similar character which tested the student's ingenuity and resourcefulness. They proved to be very valuable and were greatly appreciated by the students who were eager to obtain admission to the laboratory at all possible hours and impossible ones as well. A number of abstracts of these reports are printed in the President's Report for 1872, pp. 86 *et seq.*

The importance of the laboratory system of teaching in physics

was immediately recognized and several other institutions shortly after adopted it. Before long it became practically universal throughout this country. Professor Pickering received many expressions of appreciation of his work, among others a letter of high commendation from Professor Tyndall.

In the earlier years of the laboratory the directions given to the students were written out by the Professor himself, a method not wholly satisfactory either to him or to his pupils. But as soon as the necessary experience had given the experiments a sufficient degree of permanence he embodied a description of them in a text-book, the well known "Elements of Physical Manipulation," in two volumes, published in 1873 and 1876 respectively, which has been in actual use even down to a quite recent date.

In the autumn of 1870 Professor Pickering was away for several months from the Institute having been given leave of absence in order to join one of the Eclipse Expeditions sent out by the United States Government to observe the total solar eclipse of that year. He was stationed at Xerez, Spain. While abroad he purchased a very complete set (for that time) of electrical measuring instruments from Elliot Brothers, London, including a Wheatstone's Bridge, Thomson Galvanometer, Standard Ohm, Slide Wire Bridge and Standard Condenser, Helmholtz-Gauguin Tangent Galvanometer, Quadrant Electrometer, Peltier Electrometer and accessory apparatus. Upon the arrival of these from London (1871) he introduced the subject of electrical measurements into the regular laboratory work and arranged a series of suitable experiments. He also devised various simple accessory instruments for this purpose. Shortly after he added a brief course of lectures upon the subject. So far as he knew this was the earliest introduction of the subject into any course in this country, though somewhat earlier some experimental work had been attempted at the Institute.

In the years shortly following the opening of the physical laboratory several gentlemen in professional life, physicians, college professors and others entered it in order to pursue special work bearing upon their professional labors. Also in the summer of 1872 the laboratory was opened for the benefit of several professors of physics, Professor Pickering coming to the Institute from his summer home in Hamilton. Following upon a very hard year this overtaxed his strength so that during the next year he was obliged to pass several months in the South on account of a pulmonary difficulty, from which absence fortunately he returned wholly and permanently relieved. He gave up, however, his practice with the flute on which instrument he was a very good performer. During these early years of his teaching he was an habitual attendant at the orchestral concerts of the Harvard Musical Association, the symphony orchestra of the time, and usually carried with him the piano score of the symphony, or the full score when he could obtain it.

During the years 1868 to 1870 Professor Pickering was assisted in the lecture work by his friend, Professor John Trowbridge, who was also Superintendent of Drawing at the Institute. On his resignation to accept the position of Professor of Physics at Harvard University, the writer was appointed Instructor in Physics and in the fall of 1870 was given charge of all the lectures on general physics.

In the spring of 1874 a Physical Seminar was opened in the Department.

From 1875 until 1904 the instruction in physics received by students in the College of Liberal Arts in Boston University comprising both men and women was given in the Department of Physics at the Institute. Both a lecture and a laboratory course were for many years required to be pursued by all candidates for the degree of Bachelor of Arts. Of this latter course so long as he was connected with the Institute, Professor Pickering took sole charge. The experiments were somewhat modified when occasion called for it. This work was in some respects particularly interesting since the students were not preparing for scientific professions. Nevertheless it was wholly successful. In an account of this he adds, "The income could have ill been spared in maintaining the laboratory."

Professor Pickering gave a number of afternoon or evening courses in the "Lowell Free Courses" at the Institute of Technology for teachers and other mature students professionally interested in physics. Of these one in the spring of 1872 was a course of twenty-four laboratory exercises in physics, on Wednesday and Saturday afternoons. It was numerously attended and there were many more applications than could be accepted.

He gave few public lectures to miscellaneous audiences, although he was unusually lucid in his exposition of any subject on which he spoke. His only course of such character of which I know was one of twelve lectures before the Lowell Institute in the winter of 1873-74 on the "Practical Applications of Electricity." These were given in "Marlboro Chapel" as the lecture-room was then called. It is interesting to recall that the most recent applications then existing and in general use were electro-metallurgy, the telegraph, land and submarine, and the electric "fire-alarm" systems to which perhaps electro-medical apparatus should be added. He frequently presented papers at the Society of Arts which were always of high value and greatly appreciated by that body.

During his connection with the Institute, Professor Pickering published a number of physical papers covering a great variety of subjects. Several of these are astronomical in their character, relating to the total eclipses of 1869 and 1870 and allied topics. An exhaustive paper on the "Comparative Efficiency of Different Forms of the Spectroscope," appeared in May, 1868. One on the "Graphical Method" (1871) is of great value in showing how certain difficulties in the application of the Graphical Method may be avoided, and later a paper on "Graphical Integration" appeared. In 1873 appeared an electrical paper of an original character, "A Geometrical Solution of Some Electrical Problems," and in the same year an extended paper on "Applications of Fresnel's Formulæ to the Reflection of Light," followed a few months later by one upon "Measurement of the Polarization of Light Reflected by the Sky and by One or More Plates of Glass." His mechanical ingenuity is shown in an early paper describing a novel apparatus for producing and drawing on paper the curves of Lissajous, which for simplicity of construction and operation has not been equalled. Besides those of which he was the sole author a number of researches jointly and by his



students alone were published, some of which were and are still recognized as of much value. Those on "Intensity of Twilight," "Light of the Sky" and "Light Absorbed by the Atmosphere of the Sun" are of an astronomical character and with other papers show his interest in celestial photometry to which he afterwards devoted himself so largely. He also published several papers embodying the conclusions drawn from his eclipse observations. A valuable joint paper with one of his pupils in 1875 deals with tests made in the laboratory upon a new and powerful form of dynamo-electric machine devised by Mr. Moses G. Farmer. A full list is given in the President's Report for 1876, p. 37.

In 1876 stimulated doubtless by his interest in the Appalachian Mountain Club of which he was the founder, he published papers on "Mountain Surveying" and the "Height and Velocity of the Clouds," containing the results of many hundred measurements made with the micrometer level, an instrument of his own invention. Also, in 1876 he wrote an Introduction and Notes to Koehler's translation of Von Bezold's "Theory of Color," a very valuable work on that subject.

A list of the publications from the Physical Laboratory, 1867-1877 is given in the President's Report for 1876. They will also be found under the names of their authors in the Register of Publications of the Institute, 1862-1893.

In 1873 the work of Professor Pickering in research was recognized by his election to membership in the National Academy of Sciences. In 1867 at the age of twenty-one he had been elected a Fellow of the American Academy of Arts and Sciences and was said to be the youngest man ever elected to that society.

A few years after the opening of the Physical Laboratory an action was taken by the Corporation of the Institute which was so gratifying to Professor Pickering and Professor Rogers and to all the friends of the Institute at the time that due notice of it should be taken here.

A letter sent to Professor Rogers early in 1872 is as follows:

"Massachusetts Institute of Technology,  
Boston, February 14, 1872.

*Dear Sir:* At a meeting of the Corporation held this day, the following resolution was unanimously passed:

'Resolved, that as a slight recognition of the eminent services which Professor William B. Rogers has rendered the Institute of Technology, the Physical Laboratory of the Institute shall be designated and hereafter known as

The Rogers Laboratory of Physics.'

A true copy of the record.

Respectfully yours,

SAMUEL KNEELAND, *Secretary.*"

To this Professor Rogers made the following reply:

"Newport, May 4, 1872.

TO THE GOVERNMENT OF THE MASSACHUSETTS INSTITUTE OF TECHNOLOGY:

*Gentlemen:* I beg you to accept my thanks for the great honour you have done me in giving my name to the Physical Laboratory of the Institute.

Laboratories of Chemistry and Metallurgy have long formed a part of the instrumentalities for instruction in scientific institutions in this country and in Europe; but many years ago, while engaged in the teaching of Physical Science, I was impressed with the great need of a similar practical means of instruction in connection with the Department of Physics. The introduction, therefore, of this appliance as a part of the system of our school was a cherished purpose in drawing up 'the Scope and Plan' of the Institute of Technology.

"I may perhaps be allowed to add that when in preparing this pamphlet in the year 1864 I included a Physical Laboratory as among the practical means of instruction to be established in our school, and stated in brief some of the leading objects of such a laboratory, I indulged the belief that I was initiating a very important improvement in the methods of scientific training, for which hitherto no provision had been made either abroad or at home.

The extent to which this idea of a Physical Laboratory has been followed out in other institutions, and the number of instances in which our own laboratory, so admirably organized and directed by Professor Pickering, has been consulted by them as an example show very clearly how prompt and general has been the recognition of the value of this step in educational progress.

Our Institute may thus, I think, in this as well as in other features of its organization, claim the credit of having made an advance in practical scientific education.

I remain with great respect,

Your obedient servant,

WILLIAM B. ROGERS."

It was hoped by those connected with the Department and its friends that a plan which had been purposed might be carried out whereby an endowment should be secured for the Laboratory thus named, but the business crisis of the autumn of 1873 entirely precluded this, besides working great depression in the prospects of the Institute.\*

Professor Rogers, however, at about this time presented to the Physical Department the very valuable collection of apparatus, chiefly optical, which he had purchased while in Europe in 1867, much of which has been in frequent use down to the present time.

Two other important gifts of apparatus were also received during this period, one from Mr. Waldo O. Ross, a former student and constant friend of the Institute, and another from Mr. John C. Hoadley, well known as an engineer and one of the earliest members of the Corporation. The former consisted of a large collection of the most modern lecture apparatus relating to light, heat and electricity, the latter of valuable acoustic apparatus supplementing the early gift of Mrs. Augustus Hemenway in 1867. These also are still in habitual use and have proved of inestimable value.

The importance and novelty of the laboratory method of instruction in physics, first proposed by Professor Rogers and later brought into material existence by Professor Pickering, was recognized speedily

\*In 1875 Professor Pickering was formally given the title of Director of the Rogers Laboratory.

by scientific men. In 1882, in his vice-presidential address to the American Association for the Advancement of Science Professor Thomas C. Mendenhall spoke as follows:

"A few keen-sighted men combining in themselves happily the student and the teacher, recognized the fact that thorough instruction in physics implied and demanded the use of laboratory methods, such as had been utilized, for some years in chemistry, and were rapidly coming into prominence in every other department of natural science.

"Among these was notably Professor Pickering whose establishment of a working physical laboratory for purposes of instruction in the Institute of Technology at Boston, must be regarded as an epoch in the history of this progress."

Cajori in his "History of Physics" published in 1899 says: "The earliest institution in which laboratory physics was pursued according to a systematic plan for its educational value and was a required part of the work necessary for a degree is, we believe, the Massachusetts Institute of Technology in Boston."

As far as is known Professor Rogers enjoys the sole honor of first having realized and clearly set forth the great desirability in the study of science of a physical laboratory for teaching and indicating as well the general character which such a course should possess. But at a somewhat later date, in England, work was begun along the same lines.

While the laboratory at the Institute was in process of development under Professor Pickering, a like work was undertaken by Professor R. B. Clifton at King's College, London, who opened a laboratory of the same character in 1868, probably at the beginning of the college year. This first came to be known in this country, and perhaps in England, through a letter to "Nature" of February 23, 1871 by Professor W. G. Adams also of King's College which was called forth by a description of the Institute laboratory by Professor Pickering in that journal for January 26, 1871.\*

In a recent notice in "Nature" (Feb. 20, 1919) of the death of Professor G. Carey Foster of University College, London, it is said that he instituted such a laboratory there "about 1866," this being set forth as one of the chief claims of that excellent physicist to remembrance. Of this work, however, his neighbor Professor Adams failed to take notice.

Professor Rogers' paper of 1864 antedates even the earliest of these references, and moreover is a part of a comprehensive scheme of education planned for a technological school which was yet to be born. The sequence of events along the path which he had marked out, wherever these occurred, makes its merits the more conspicuous. Whether his entirely original ideas on this subject came to be known abroad so as to influence the movement of educational thought in the direction which it followed cannot be known, but his presence and educational investigations in England in 1864, shortly after the "Scope and Plan" was issued and again in 1867, together with his large intercourse at that time with British scientific men, make it quite possible that it did.

\*Cajori refers to this laboratory, saying at the end of the paragraph from his History already quoted, "The institution competing with it for this honor is King's College in London."

In 1873 there was established at the Institute upon the proposition of Professor Pickering, a new course leading to a degree, the Course in Physics. This was done because of the desirability of a course which should train students intending to become teachers of that subject or to enter upon any of its practical applications, or who should wish to secure a thorough scientific training for its own sake. Its value was recognized immediately and though the number of students entering it was small they were of exceptionally high scholarship.

Soon after this he further extended the scope of his work by introducing a course of lectures to older students upon Geodesy and Topography and another upon Practical Astronomy, particularly for the benefit of the civil engineers. He suggested that these might lead to the establishment of an astronomical laboratory. A preparation for the latter course was already laid by the lectures upon Descriptive Astronomy, given within the Department, which were required of all regular students.

In 1874 Professor Pickering married Miss Lizzie Wadsworth Sparks, a daughter of the Rev. Jared Sparks, the historian and a former President of Harvard University. Mrs. Pickering died in 1906.

At the Philadelphia Centennial Exposition of 1876 the Department made an admirable exhibit, illustrating the plan of instruction in physics then carried out at the Institute. This showed typical and original laboratory apparatus, results of original work planned and executed by students, photographs and photomicrographs taken by them, instruments invented by members of the Department and graduating theses of its students. The exhibit was not showy but it was marked by great originality and was highly commended by competent authority. A list of the objects exhibited is published in the President's Report for 1876, p. 180.

In the autumn of 1876 Professor Pickering received an invitation to become the Director of the Harvard College Astronomical Observatory, which he accepted. He retired from his Institute work January 31, 1877, being released at the middle of the year in order that his work at the observatory might not be delayed.

At this time he presented to the President of the Institute a full report upon his ten years of labor there, which was published in the President's Report for 1876, pp. 26-39. In it the following summary of a part of the work is given:

"A large physical laboratory has been built up, which now accommodates a hundred students a year. The course has been extended into the fourth year, giving technical experiments to the architects and civil engineers, and to our own students in photography, lantern projections and practical astronomy. Original investigation is encouraged, and numerous articles have been published by our students in the scientific periodicals of the day. The principles on which our work is conducted are few and simple. First, use is of the first importance; appearance, secondary. All our apparatus is based on this fact. Polish and lacquer are dispensed with, and the money saved is expended on the working parts. Secondly, originality on the part of the student is encouraged to the uttermost, and he is taught that, as a scientific man, original research should be his highest aim. Thirdly, there are no secrets in science, and accordingly every aid has been extended to other institu-



tions desiring to adopt our methods, by giving them the results of our experience."

He likewise especially emphasizes the principle at all times which was a fundamental point in his belief.

"The great object to which my work for the last ten years has been directed has been original investigation . . . . I have endeavored to impress on all our students in physics the principle that original investigation should be the great aim of every scientific man. In consequence a great deal has been done in the laboratory that is new but in many cases there has been neither time nor means for publication."

When Professor Pickering wrote, "There are no secrets in science" he expressed a conviction which he held firmly throughout his life, in a wider sense than might be inferred from the context. He felt as did Professor Joseph Henry and others of an earlier day that it was the duty of a scientific man to give to the public whatever value his ideas or inventions might possess rather than to secure them to himself by patenting—still the recognized code of the physician in this country. But he did not criticize unjustly those who held a contrary belief.

The Corporation recognized its appreciation of the services of Professor Pickering by a formal vote of recognition and good wishes.

Also at a meeting of the Alumni Association held on January 24, 1877 a committee consisting of Dr. Charles S. Minot, '72, and Dr. Francis H. Williams, '73 was directed to draw up resolutions to be presented to Professor Pickering. These were unanimously passed as follows:

"Resolved,—That the Alumni Association heard with sincere regret of the resignation of Professor Pickering, and that we hereby express our high esteem of the example that he has afforded us of devotion and enthusiasm in the pursuit of knowledge as well as for the interest he manifested and the encouragement he gave us in our own scientific endeavors.

"We tender him our cordial wishes for his success and happiness in the new duties he assumes, and the assurance of our warmest personal regard."

Throughout the many years following his entrance upon his duties at Harvard, Professor Pickering retained his attachment to the Institute and his belief in its work. He was urgent that scientific men from abroad whom he came in contact with should visit it and meet those of its staff of instruction whose work was allied to their own. In some instances he allowed members of the physical department of the Institute to serve as volunteer assistants in the research work of the observatory.

At the inauguration exercises at the new buildings of the Institute he was present as a representative of the American Astronomical Society, and also was present at the gathering of the alumni from Course VIII, to whom he made a very charming reminiscent address. Only a few months before his death he escorted a large party from the meeting of the American Astronomical Society to inspect the Institute buildings.

The subsequent work of Professor Pickering at the Harvard College Observatory lies beyond the scope of this article. It will be found described in the various biographical notices which have been published, of which the following may be cited as easily accessible: Astrophysical

Journal, November, 1919, by Solon I. Bailey, Acting Director of the Harvard College Observatory; Journal of the Royal Astronomical Society of Canada, April, 1919, by Professor Edward S. King, and Popular Astronomy, March, 1919, by Miss Annie J. Cannon, both of Harvard College Observatory; Scientific Monthly, March, 1919, editorial notice; Science, February 14, 1919, by Henry N. Russell, Director of the Astronomical Observatory of Princeton University; Harvard Graduates' Magazine, June, 1919, by the Rev. Joel H. Metcalf, a distinguished amateur astronomer and intimate friend of Professor Pickering. The articles of Professor Bailey, Professor King and Miss Cannon and the notice in the Scientific Monthly are illustrated by portraits.

Following the usual custom of those societies there will be published later biographical sketches in the Proceedings of the American Academy of Arts and Sciences and the Biographical Memoirs of the National Academy of Sciences; the latter with a bibliography of Professor Pickering's publications.

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## FROM TECHNOLOGY TO BRITAIN

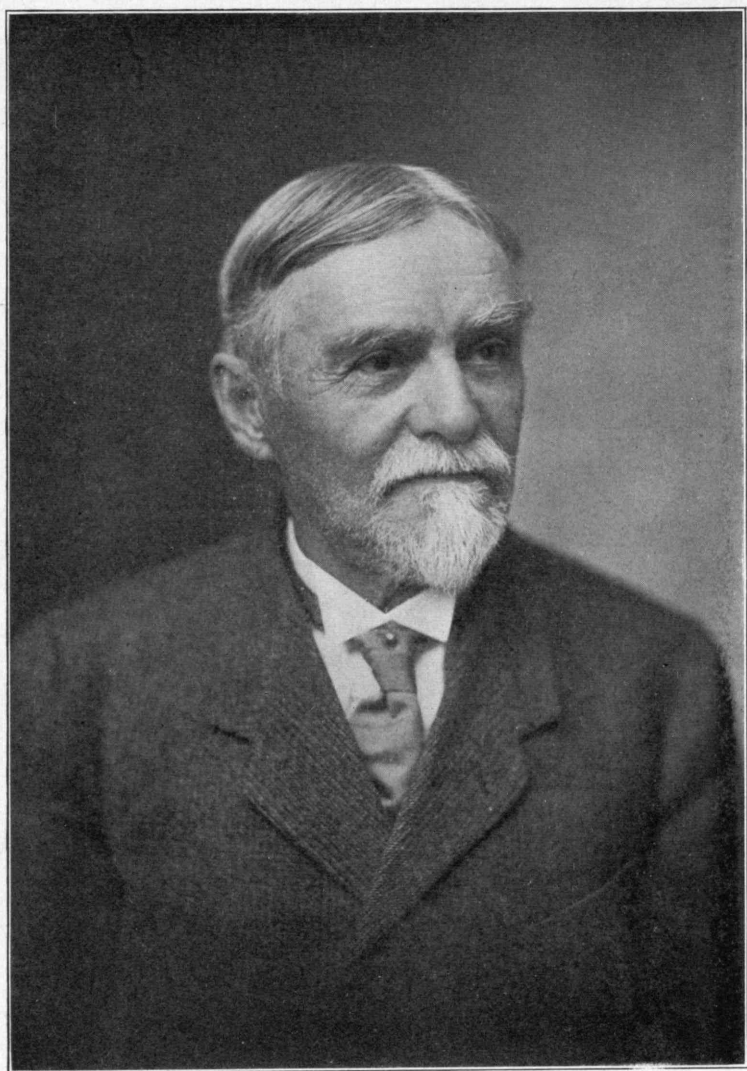
### Dr. Sedgwick first exchange professor

ANOTHER exchange professorship became a fact this spring when Dr. William T. Sedgwick, senior professor of the Institute of Technology, went abroad to become a member, for the time being, of the faculties of the British universities of Cambridge and Leeds. Because of the after-war conditions it is not expected that either Cambridge or Leeds will be able to send an envoy to Technology until next year.

This new exchange is the direct result of the visit to this country in 1918 of the British Educational Mission. It is still more the result of a suggestion made to the commission by the late President Maclaurin of Technology. While the British mission was largely interested in the matter of exchanging students, it was glad to approve the plan for an exchange of professors. Accordingly, Dr. Sedgwick now goes to Cambridge and Leeds as the Institute's representative.

Dr. Sedgwick, head of the department of biology and public health, will be Tech's first exchange professor to the British universities. Dr. Sedgwick left for England in April, going into residence at the two universities and dividing his time between them. Professor and Mrs. Sedgwick expect to spend the summer in Europe and to return to Boston in September.

In addition to his position on the Tech faculty Dr. Sedgwick is curator of the Lowell Institute, chairman of the administrative board of the Harvard-Technology School of Public Health, assistant Surgeon-General in the United States Public Health Service Reserve, member of the International Health Board of the Rockefeller Foundation, and of the public health board of the state of Massachusetts.



PROFESSOR JOSEPH J. SKINNER  
Member of Massachusetts Institute of Technology Faculty, 1896-1904

## JOSEPH JOHN SKINNER

Died November 12, 1919

[A memoir of a former Institute professor.]

JOSEPH JOHN SKINNER, Ph.B., C.E., Ph.D., Yale, Assistant Professor in Mathematics, M. I. T. 1896-1904, was born January 13, 1842 at Putney, Vermont. After a preparation conducted largely by himself, young Skinner entered the Sheffield Scientific School of Yale University in 1866, and quickly and easily became a leader in the studies of his class. It is said that his recitations were always well prepared and accurate, and that it was a pleasure to listen to him in his classes. During his undergraduate course he took prizes in French, German and Civil Engineering, and in 1869 received the Degree of Bachelor of Philosophy (Ph.B.). In 1873 he became Instructor in Civil Engineering at his Alma Mater, and in 1874 was awarded the Degree of Civil Engineer (C.E.). From 1874 to 1881 he taught Mathematics at the Sheffield Scientific School, and also some classes in Physics and Astronomy. One of his pupils in 1874 was the writer, whose recollections of "Tutor Skinner" are of a man always genial and especially courteous to his students. It was in his classes that some students were for the first time in their lives treated as gentlemen and equals, and the reaction was encouraging and stimulating. On the other hand "Tutor Skinner" did not escape chaffing in a familiar rhyme which ran:

"There was a bold tutor and he was a sinner.  
His first name was Joseph, his last name was Skinner.  
He wrestled the Freshmen and brought them to time,  
With his tangent, co-tangent, co-secant, co-sine."

During the years of his instructorship Mr. Skinner did some work with General Francis A. Walker on the Statistical Atlas of the Ninth Census, and in 1875 made observations at New Haven of the transit of Mercury which were published in the Government Report in 1879 — Skinner having been the only New Haven observer to obtain all four contacts.

In 1876 he received the Degree of Doctor of Philosophy in Physics, Chemistry and Mathematics, and in the same year published a work on "Approximate Computations," which was followed in 1877 and 1878 by articles in Van Nostrand's *Engineering Magazine* on "Momentum and Vis-Viva." In 1880 an article from Dr. Skinner's pen appeared in the *Popular Science Monthly*, entitled, "Why Do Wells and Springs Overflow?" In 1881 he became treasurer and manager of the American Electric Company of New Britain, Conn., with whom and their successors, the Thomson-Houston Company of Boston, he remained until



late in 1884. Six months of 1885 he gave to experimental research work in Professor Anthony's Laboratory of Physics at Cornell, and in the same year became Instructor in Mathematics at the Massachusetts Institute of Technology, being promoted to Assistant Professor in 1896,— a position which he retained until 1904. He taught also in the Departments of Civil Engineering and Physics.

Professor Skinner was a member of the American Association for the Advancement of Science, the Connecticut Academy of Arts and Sciences, the M. P. Club of Boston and other scientific and social organizations. During his later years he lived at Kenwood, N. Y., where he died on November 12, 1919, in his seventy-eighth year. Dr. Skinner was married January 7, 1872 to Miss Sophronia A. Bailey, who died in 1908 and is survived by a son, Theodore H. Skinner, M. I. T., Course IV, 1892.

W. T. SEDGWICK.

## THE PORTRAIT OF JOHN CUMMINGS

THE Institute is fortunate in having on its walls a portrait of one of its treasurers, a group of men to whom the school is so much indebted. They are not so constantly before the student body, the faculty, the Alumni, or the public as is the President, but those of us who have followed their work know how generously they have given of their time and experience, and the heavy burden they have borne.

John Cummings in 1872 became the second treasurer, following William Endicott, Jr., in that office, and carried its responsibilities through a most trying period in the history of the school. In 1872-73 the number of students had risen to three hundred forty-eight, but with the great financial depression that took place during the latter year, the numbers declined to such an extent that six years later there were only one hundred eighty-eight, one-sixteenth of our present number, a matter of concern for a school that had provided for a much larger body of students.

In 1877 President Runkle stated that "without immediate relief we must either discontinue some of the departments or cut down the salaries, already too small, or more probably both." This was a time that demanded a treasurer with vision and courage, based on a deep conviction of the value of the school, and animated by great devotion to its ideals, and these requirements were filled in John Cummings.

In 1879, the number of students began to rise again, and in a few years the difficulty to be overcome was to provide the money and land needed for the growing influx.

In 1889, when Mr. Cummings resigned the treasurership, the Corporation passed the following vote:

"Resolved, that, at the close of the long term during which the Hon. John Cummings has held the office of treasurer, it is fitting that the Corporation should record its deep sense of the disinterested nature and the high value of Mr. Cummings' services. During more than one critical period in the history of the Institute of Technology it is fairly a question whether the school could have been sustained and its existence perpetuated but for his devotion to its interests and his courageous acceptance of responsibility."

The Corporation also voted at this time that in recognition of his services as treasurer "the Laboratory of Mining Engineering and Metallurgy shall be known hereafter as the John Cummings Laboratory."

On March 10, 1897, the Corporation in accepting the resignation of Mr. Cummings from the Executive Committee voted to place another minute on the records, a part of which is as follows:

"Mr. Cummings became connected with the Institute in 1866 soon after its active operations began. He was its treasurer from 1872 to 1889, a member of the Committee on the School from 1875 to 1883,

when upon the formation of the Executive Committee he took the place upon that board which he has since retained. His services in all these various positions have been of the greatest value, and his enthusiasm and interest untiring.

"The assistance which he gave to the Institute while treasurer by pledging his personal credit to supply it with the means of carrying on its work is well known to the few of his contemporaries who remain, but it is only right that the younger members of the Corporation should be told that, but for the aid thus given, it is difficult to see how the work of the Institute could have continued."

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### DECEASED ALUMNI

The following is a list of those recently deceased:

C. B. Easley, '16	W. M. Hollis, '96
Woodruff Leeming, '91	Miss Bessie T. Capen, '78
Edwin C. Miller, '79	William Foster, '74
Robert K. Sheppard, '95	Edward Learned, '79
George B. Sherman, '89	Rufus H. Savery, '09
Horace M. Smith, '02	Miss Susan P. Atkinson, '82
John H. Manahan, '96	Cyrus T. Johnston, '09
Walter Shepard, '72	Frank F. Phinney, '93
Leonard P. Burnham, '04	Amory Austin, '73
R. W. Pratt, '98	Col. James W. English, Jr., '86
Cyrus C. Howland, '96	John W. Friery, '18
Arthur S. Eldredge, '79	Guy C. Simpson, '06
Miss Elizabeth MacGregor, '19	Charles, A. Simpson, '96
Mitchell Coffin, '12	Robert N. Turner, '05
Chester C. Ford, '08	Professor, Herbert B. Perkins, '74
Harold E. True, '08	Charles J. Barnes, '96
Ambrose Packard, '92	Nathaniel R. Craighill, '93
George M. Winne, '06	Grenville Snelling, '82
William H. Ruddick, '75	Alexander B. Shaw '85
	Edgar A. Turner, '07

## NEW MEMBERS OF THE ALUMNI ASSOCIATION

Ellwood Harmon Aldrich, '19	Louis Frank Woodruff, 2d, '18
George Lockhart Baum, '19	Kenneth Andrews Wright, '19
James Howard Becker, '19	John Wheeler Clarkson, '18
Leonard Marshall Bruton, '19	Harold Young Keeler, '18
Jacob Munroe Carter, Jr., '19	Francisco Lobos, '18
Collier Cobb, Jr., '18	Charles Clarke Long, '18
George Colby Davis, '18	Olvin Garland Lufkin, '18
William W. Drummey, '16	Katsuyuki Nishizaki, '18
John Howard Earl, '18	Earl G. Watrous, Jr., '18
Edwin Simon Fields, Jr., '18	John Drummond Bowman, '19
Karl Leonard Ford, '18	James Robert Hawkes, '19
Grant Elliott Gay, '19	Harold Francis Marshall, '19
Lewis Evans Hartman, '19	David E. Gray, '99
Edmund Walton Hill, '19	Henry Bailey Barry, '02
Nelson Crosby Hinckley, '18	John Tetlow, '08
John Charles Janson, Jr., '18	Chauncy Depew Davis, '12
Clyde Charles Jones, '19	Stuart Cary Sargent, '12
Ira Payne Jones, '19	Fred Loring Churchill, '18
Wilfred Otto Langille, '19	Herbert Joshua Goldsmith, '18
Robert Burns MacMullin, '19	Edward Adams Mead, '18
Takanaga Mitsui, '18	James W. O'Brien, Jr., '18
Robert Alfred Montgomery, '19	Meredith Francis Parker, '18
Harold Bell Morrill, '18	Arthur Ernest Griffin, '19
John Heisler Nelson, '19	Russell Hamilton, '19
Harold Francis O'Donnell, '18	Paul Daniel Sheeline, '19
Carley Herbert Paulsen, '19	Arthur Emerson Gilmour, '17
Mahlon Milton Read, '18	John Blossom Woodward, '18
Robert Wells Roger, '18	Joseph Beaudette, '14
Albert Francis Sawyer, '18	Frank Capon Cleverly, '14
Herbert William Skogstad, '19	Arthur Francis Graham, Jr., '14
Horace Gilbert Swan, '18	Charles Barstow Hull, '14
Stuart Gilbert Wallace, '18	Jesse Emanuel Martsof, '14
Frederick Laurence Warner, '18	Robert Hale Tuttle, '14
Leon Howard Alexander Weaver, '19	Harold Edward Lobdell, '17
Herbert Blish Wheeler, '18	Albert Edward Tuttle, '17
	Harold Bernard Butler, '18
	Ervin Montague Kenison, '19



## ADDRESSES WANTED

Mail has been returned to the Alumni Office for the following Former Students. Information is desired concerning these people, that they may be kept up on the mailing list.

WALTER HUMPHREYS, *Secretary.*

<i>Name</i>	<i>Class</i>	<i>Last Known Address</i>
Silas W. Stone	'75	54 Mt Vernon Street, West Roxbury, Mass.
Tadabumi Torie	'84	House of Peers, Tokio, Japan.
Charles D. Underhill, M.D.	'87	160 Newbury Street, Boston, Mass.
Bayard F. Jones	'92	40 West 28th Street, New York, N.Y.
Walter D. Litchfield	'92	No address
Godfrey Enziro Kato	'93	Suirigimusho, Kyoto, Japan.
Francis C. Norton	'93	Francis Cobb & Sons, Rockland, Me.
Toross H. Torossian	'94	Lome, Bulgaria.
Gilbert J. Egan	'95	321 Main Street, White Plains, N. Y.
Alfred V. Lincoln	'95	Winthrop National Bank, Boston, Mass.
Karl Wetherbee	'95	Canadian Pacific Co., Montreal, Quebec.
Mrs. Harriett J. B. Pontasse	'98	8 Spring Street, Westerly, R. I.
Sheldon, D. Graff	'00	DuPont Circle, United States Service Club, Washington, D. C.
Harris G. Hooper	'00	517 Provident Bank Building, Cincinnati, O.
George A. Clark	'01	Washington, Indiana.
William C. Bollman	'02	Otis Elevator Co., New York, N. Y.
Mrs. Annette E. Locke	'02	R.F.D.6, Box 28, Lincoln, Nebraska.
Patrick H. Magrane	'02	Care of Magrane & Houston, Co., 477 Washington Street, Boston, Mass.
J. Russell Jones	'03	Chicago Telephone Co., 230 West Washington Street, Chicago, Ill.
Walter F. Roper	'03	Hopedale, Mass.
Henry F. Causebrook	'04	S. W. Portland Cement Co., El Paso, Texas.
Mortimer F. Smith	'04	490 Beacon Street, Boston, Mass.

<i>Name</i>	<i>Class</i>	<i>Last Known Address</i>
Miss Katherine K. Houghton	'05	Corning, N. Y.
Miss Kiyo Makino	'05	26 Akashiho, Tsukiji, Tokio, Japan.
Rene Roger-Marvais	'05	96 Rue de la Victoire, Paris, France.
Milford Wortham	'05	226 Fifth Avenue, Room 408, New York, N. Y.
Harry J. Armstrong	'06	R. F. D. 6, Lock Raven, Maryland.
Herbert Callman	'06	140 West 86th Street, New York N. Y.
Edward P. Cutter	'06	Box 8, Ensley, Alabama.
Herbert W. Harvey	'06	Southampton, Massachusetts.
Edward S. Manson	'06	3125 37th Avenue, S. Seattle, Washington.
William Angrew G. Moffat	'06	Borough Hall, New Brighton, N. Y.
Joseph Skrainka Weil	'06	11 Broadway, New York, N. Y.
Foster Webster Holbrook	'07	20 Charles Street, Waltham, Mass.
Francis H. Kales	'07	Care of Little, Adams & Wood, Hong Kong, China.
John Hardy Bossong	'08	451 West 46th Street, New York, N. Y.
Oliver S. Jennings	'08	Care of Westinghouse Electric Manufacturing Co., East Pittsburg, Pa.
John I. B. Larned	'08	Lake Forest, Ill.
Dr. Harold W. Wellington	'08	78 Quincy Avenue, Weymouth, Mass
Prof. Ching Yu Wen	'08	Government University, Pekin, China
Victor Otis Westervelt	'08	Westervelt Realty Co., San Antonio, Texas.
Salvador Altamirano	'09	P. O. Box 1967, Mexico D. F., Mexico
Francis C. V. Crowley	'09	Fifth Cavalry, Fort Leavenworth, Kansas.
Fred Moore	'09	Amalfi Antioquia, Columbia, S. A.
Alexander G. Bartner	'10	238 Albany Avenue, Avondale, Cincinnati, O.
George Boddie, Jr.	'10	Hopkinsville, Kentucky.
Benjamin S. Bonebrake	'10	1508 Eutaw Place, Baltimore, Maryland.
Stanton S. Bundy	'10	620 Carson Street, San Antonio, Texas.
Herbert W. Cummings	'10	Townsend Harbor, Massachusetts.
John Alden Holbrook	'10	61 West Fourteenth Street, New York, N. Y.
Guy S. Hutchins	'10	Fitchburg, Massachusetts
Francisco S. Jimenez	'10	Board of Health, San Jose, Costa Rica.
Clarence Leslie Jones	'10	American Locomotive Co., Schenectady, N. Y.

<i>Name</i>	<i>Class</i>	<i>Last Known Address</i>
Matthew B. Black	'11	49 Hovey Street, Rochester N. Y.
Pelayo Chinchilla-Kirkpatrick	'11	18 Hospital, Cerro Alegre, Valparaiso, Chile.
Ivory Small James	'11	404 East Evergreen Street, San Antonio, Texas.
Whitney Blake Jones	'11	179 Kearney Avenue, Perth Amboy, N. J.
Ripley Ropes	'11	Morristown, New Jersey.
Howard R. Schulze	'11	Care J. J. Donovan, 310 Security Bank Building, Oakland, Calif.
Charles S. Williams, Jr.	'11	306 West 102nd Street, New York, N. Y.
Fernando Lavenas	'12	Bartolome Nitre 441, Buenos Ayres. Argentine.
Brahma Behery Sircar	'12	210 Cornwallis Street, Calcutta, India.
Sidney Y. Chen	'13	Foochow Navy Yard, Foochow, China.
Henry G. Hornbeck	'13	453rd Truck Company, Fort Meyer, Va.
Sih Sung Keh	'13	Hanyang Iron and Steel Works, Hankow, China.
Alfred Joseph Morcom	'13	5a del Fresno 178, Mexico D. F., Mexico.
Gaillard Rembert	'13	Brunswick Apartments, Washington, D. C.
Rene Alphonse Richard	'13	165 Beech Street, Holyoke, Mass.
Ruppert E. Schatz	'13	32 Glen Avenue, Mt. Vernon, N. Y.
Louis A. Swatzburg	'13	120 Main Street, Norwich, Conn.
John Whitley Underhill	'13	94 Lake Place, New London, Conn.
David Monaghan Young	'13	Sangersville, Maine.
James T. Holmes	'14	232 Church Street, Ardmore Pa.
Gilbert Mariano Ireland	'14	9 Bassett Street, Lynn, Mass.
Nicholas S. Penn	'14	Technological Institute, Tomsk, Siberia, Russia.
Cecilio Salvador Rossy	'14	74 Fenwood Road, Boston, Mass.
Mizael L. Ferreria	'15	State of St. Paulo, Brazil, S. A.
Jacob Ginsburg	'15	815 Rebecca Avenue, Wilkinsburg, Pa.
Frederick W. Harris, Jr.	'15	187 Front Street, Weymouth, Mass.
Howard Langdon King	'15	Co. B, 27th Regiment Engineers, Camp Meade, Maryland.
Louis P. Smithey	'15	Harrisonburg, Va.
George S. Stewart	'15	1430 3rd Avenue, Columbus, Ga.
Gerard Roland Walsh	'15	905 North L Street, Tacoma, Washington.

<i>Name</i>	<i>Class</i>	<i>Last Known Address</i>
Frank Pirie Wheeler	'15	103 Hemenway Street, Boston, Mass.
Su Zi	'15	38 Si-Tsaung Road, Shanghai, China.
Ralph W. Channell	'16	2 Arborway Court, Forest Hills, Mass.
George Ira Crowell	'16	Westinghouse, Church, Kerr & Co., Muscle Shoals, Alabama.
Fred F. Glen	'16	1123 Hassalo Street, Portland, Oregon.
Edward Warren Macy	'16	Wayne, Pennsylvania.
Lyman Quincy	'16	4 Peckman Street, Salem, Mass.
Frank E. Richardson	'16	5 Howland Street, Battle Creek, Mich.
Francis E. Stern	'16	31 Rue Spontini, Paris, France.
Tsin Yuen	'16	39 Nathan Hale St., New London, Conn.
Arthur S. Bedell	'17	Constantinople, Turkey
Yih-Tze Chang	'17	505 West 124th Street, New York, N. Y.
Kao Chien Chen	'17	36 Nathan Hale Street, New London, Conn.
Wen-Yueh Cho	'17	Shung Shan, Canton, China.
Paulo R. deFreitas	'17	Rua 15 deNovembro 48, Paulo, Brazil
Poh Yuan Hu	'17	Jones & Laughlin Steel Co., Pittsburg, Pa.
Chester Arthur Rogers	'17	40 Kent Street, Brookline, Mass.
Edmond Spencer	'17	97 St. Stephen Street, Boston, Mass.
Harry Yudowitch	'17	55 Portland Street, Hartford, Conn.
Jeean Tsolin Chang	'18	Changli, Chile Province, China.
Wing Kee Chen	'18	Canton, China.
Kun Lian Chow	'18	Foochow, China.
Carl B. Harper	'18	Elkin, West Virginia.
Virgil W. Jorgensen	'18	Care of Fowler Airplane Corp., San Francisco, California.
Sen-pi Lo	'18	Pov-ding Street, Kui-chan, China.
John Reginald Petter	'18	41 Albert Road, Regents Park, London, Eng.
Donald Royce	'18	Hancock, Michigan.
Robert F. Smith	'18	726 18th Street, Des Moines, Iowa.
Leslie A. Stewart	'18	821 Forest Avenue, Buffalo, N. Y.
Harold W. Trease	'18	506 West Third Street, Des Moines, Iowa.
Cullen Henry Want	'18	Rantoul, Illinois.
Henry W. Wright	'18	55 Roxbury Road, Garden City, N. Y.



<i>Name</i>	<i>Class</i>	<i>Last Known Address</i>
Harry P. Azadian	'19	25 Curve Street, Boston, Mass.
Julio Bascunan	'19	Campania 1679, Santiago, Chile.
Hernan Besa-Montt	'19	Santiago, Chile, S. A.
Nai H. Leung	'19	4 Babington Path, Hong Kong, China
John Joseph Murphy, Jr.,	'19	South Mentor Avenue, Pasadena, California.
Harold Curtis Wells	'19	34 Bates Road, Watertown, Mass.
Charles Foo Yao	'19	Chichowfoo, Anhui, China.
Tek-chen Yeh	'19	Shanghai, China.

## UNDERGRADUATE ACTIVITIES

WILLIAM B. BARROW, JR.

IN these latter days of sunshine and solid walking, when all of us are sadly in need of inoculation against the encroachments of that wily bacillus, spring fever, it seems too bad to have to spend an hour or so in recalling the doings of days long since melted with the snow. It would be much more in the spirit of the day to dream and picture and predict what is to be done in the halls of Technology than to drily chronicle those deeds that have been history some time gone by. To you in the lands below the snow line tales of waist-deep drifts and ice-coated moustaches may have their charm and poetry, but to us who have lived in the domain of the Boston Elevated Street Railway Company and who have had to wear high rubber boots in self-defense against the hours of breakdown and self-transportation it is far from charming.

But all that has little to do with what your undergraduate brothers have been accomplishing in the hours between sections and study. You shall hear. Most enjoyable of all the events that have filled the calendar of the Professional Societies was the visit and address given by Matthew C. Brush, '01, head of the Hog Island Shipyard, to an enthusiastic audience of two thousand in Walker Memorial about the middle of March. His talk was an entertaining résumé of the work and methods used at Hog Island, and all concerned, speaker, committee, undergraduates and faculty, unanimously pronounced it the best program ever arranged by the governing boards. Motion pictures, ten reels of them, illustrated his lecture. Mr. Brush has generously promised that the department heads of the Corporation will be allowed to come to Technology to talk to the students during the present term.

Besides this joint affair the individual societies have enjoyed a particularly active winter. The Radio Society has had numerous smokers addressed by men well up in the art, besides a joint banquet held with the New England Amateur Wireless Association. The Civil Engineers were told of the plans for the new bridge across the Connecticut River at Springfield by F. H. Fay, '93, and E. H. Hoyt of Haven & Hoyt. Visits have been made to the Charlestown Navy Yard and numerous others plants in the vicinity. The Electricals have been taking up the business and economic aspects of power generation and distribution under a varied list of speakers. The branch of the American Society Mechanical Engineers has devoted most of its meetings to to visiting near-by plants, getting ideas from them as to the practical operation of modern manufactories. Chemical Engineers follow the same program, the largest plants visited being the Watertown Arsenal and the Hood Rubber Company.

Several joint smokers have been run off. The Civil Engineers and Corporation XV listened to Charles Whiting Baker on "Developments in Transportation," the Aeronauts and the Chemicals have taken

up the relation of Chemistry to Aeronautics, while the Mechanical Engineering Society and the Naval Architects have studied the relations of these closely allied professions, Elmer I. Sperry of the Sperry Gyroscope Company being the speaker.

"Technique '21" is rapidly nearing publication. Printing has already begun, and the editors assure those who await its début that there is no question about its being "the best ever." The '22 electoral board has been chosen and is now in the travail of electing the editors of next year's annual. The treasurer decided on is D. F. Carpenter, the business manager is C. E. Phillips and his assistants are to be H. E. Rockefeller and T. N. Berlage. It is reported that nearly two thousand five-hundred of this year's book have been sold.

*VooDoo* has made alterations in its managing board as follows: R. R. Ridgeway, editor-in-chief; E. W. Davis, business manager; N. F. Patton, advertising manager; George Nesbitt, publicity manager; A. W. Norton, treasurer. The board of editors comprises D. E. Stagg and M. M. Bauer, with several vacancies yet to be filled. The "Life" of the Institute has brought out some noteworthy issues since Christmas, chief among which being the Feminine and the Architects' numbers.

Sponsored by the *Tech*, the *Tech Engineering News* has made a place for itself in the list of undergraduate publications. It is issued monthly and has for its purpose the infusion of the professional spirit among the undergraduates. The text consists of interesting articles describing or illuminating modern engineering technique and progress, written by men who know. Numerous compliments have already been paid the paper, both by the Engineers of the district and by the Boston Press. The lion's share of the credit for consummating the plans of organization and initiating those plans, once formed, belongs to Hazen C. Pratt, '21.

While no one begrudges the passing of winter itself, the fact, that with it goes a large part of the glitter and glow of the indoor social season, must cause a pang of regret to some. Dances and socials and concerts have held high hand in pleasure giving since January. The Musical Clubs' winter concert at the Hotel Somerset probably stands out most distinctly of the formal functions. Over seven hundred attended, and two ballrooms were necessary to accommodate the dancers. Two unique affairs were staged by the California Club and by a Mardi Gras Dorm Dance, both held in Walker during February. The former was a "wild and woolly" affair, with sombreros and chaps, and faro and roulette, and a "reg'lar" sheriff. The latter, a masquerade ball, attempted to make the dancers forget the New England outside by bringing a portion of New Orleans to Walker Memorial. Both dances were enjoyed immensely. Several other functions were carried through by the Orchestra, by Cleofan, and by the Walker Club.

The Junior Prom Committee has been made up of L. W. Conant, A. D. Harvey, K. P. Cutherland, M. M. Zoller and E. W. Booth. Four hundred fifty tickets, the entire subscription, have been taken up. Junior Week comes from April 15 to 20. Thursday, the fifteenth, starts the ball rolling with the "Technique" Rush in the afternoon, followed by the Spring Concert that evening. A track meet will be held Friday, with the Prom, the biggest social event of the year, coming

Friday evening. A reception and dance, open to the entire student body, will be given Saturday evening. The Tech Show holds sway Monday evening. Tuesday morning, at nine o'clock, cruelest event of all Junior Week takes place, starting back to the long grind that ends only with the end of final examinations June 10.

The Show this year is "Patsy," written by C. C. Carven, '21. Rehearsals are going forward rapidly under the direction of John Craig, of Arlington Theatre fame, assisted by his wife, Miss Mary Young. Candidates have been in profusion for all the parts, even for the two pair of legs necessary for a "camel." The prize-winning poster has been designed by J. A. Bowers, '22. E. I. Shock, '21, captures the honor of designing the program cover. It is noteworthy that both author and artists hail from Course IV. The scenery for the Show is being designed by S. C. Chamberlain, Roger Hayward and Charles Wilson. Teodorico Quiros, '20, is the composer of this year's ballet. Miss Virginia Tanner will coach. It will not be divulging any state secrets to tell the cast and actors, so here it is:

Patsy, erstwhile Cleopatra, of Nile fame .....	W. J. Hamburger, '21
Phillip Morris .....	F. D. Gage, '22
Herbert Tareyton .....	H. J. Horn, Jr., '22
Cleofan, daughter to Patsy .....	P. D. Appel, '22
Julius Sneezer, Emperor of Rome .....	A. L. Mock, '21
Marc Antony Keezer, Egyptian Old Clothes Dealer....	E. H. Schmitz, '23
Rameses, Bolshevik Cigarette Manufacturer .....	M. G. Munce, '21
Helmar, Egyptian Chief of Police .....	E. L. Harlin, '20
Murad, Royal Architect .....	E. R. Harman, '21
Zira, Bohemian Suffragist .....	J. W. Church, '21
The Camel, a bi-motored Quadruped, Bow Tractor .....	E. W. Booth, '22
Stern Tractor .....	J. A. Grimmons, '21

Two class banquets have been held and both on the same night. The feasts of the seniors and freshmen happened to coincide, but since they were on opposite sides of the Charles River no fatalities ensued. Mr. Williams of the Boston *Transcript* addressed the seniors, while Dean Burton, Coach Kanaly and Doctor Talbot spoke to the freshmen. Both affairs were very much enjoyed. The Freshman Song contest was closed at the banquet, J. A. Pennypacker being announced the successful composer.

Hockey and swimming have held the boards athletically. With the erection of the Pavilion just across Massachusetts Avenue from the Institute, the only large skating rink in the city, it was thought that student interest in hockey would revive, but the exorbitant rates of admission charged by the management have somewhat damped the ardor of the followers of the game and more than offset the expected increase in attendance. Nevertheless the Crimson-Gray team won victories from Tufts, Boston College, Springfield, Williams and all-star Y-D aggregation. They were beaten by Harvard and by Boston College and played one draw with the Y-D team. Not a bad season in the least. Schwamb has played the most noticeable game, keeping goal in masterly fashion.



The career of the Swimming Team has been checkered. The season opened with a win from Springfield and another from Wesleyan. Then the strong Yale team swamped our men, and Brown took advantage of the opportunity to score another meet against us. Harvard was signally defeated, and all the Institute rejoiced, but even so, we could not match with the sailors, and Annapolis has taken the honors in the latest meet that has been engaged in. The remainder of the season is yet to be seen. R. G. Geckler, '22, is now manager of the team, succeeding Mackay, '21, who resigned early in the year.

Interfraternity basketball is careering along, although results are hard to get authenticated, and both sides always have conflicting stories. It is remotely possible that a championship may be established, quite remotely.

Joseph Greenblatt, '22, has been chosen manager of the Tennis team. C. W. Hildreth, '23, will manage the freshman team. The Varsity schedule includes Tufts, Bowdoin, Dartmouth, Amherst, Williams, Harvard, Springfield Country Club and Worcester Tech. The season opens May 5.

At the same time that our men were going down in defeat to Yale, the Wrestling Team was outpointing them all around in a mat meet. This is the first defeat administered to the Blue in seven years. On the same trip the Wrestlers defeated Brooklyn Polytechnic. Dartmouth has also been beaten. Altogether the season has been quite successful. Our Gym team, too, have placed our colors over those of Harvard and Princeton in a three-sided meet held in Walker Gym. It begins to look as though the mental gymnastics we have to go through in Math 22 and Applied are of some use after all!

Harvard took away the honors in a dual track meet held in February, but there seems to be quite a hot argument as to the degree to which Johnnie is entitled to the credit for same. Discrimination against our athletes is charged and athletic relations have been placed in about the same position as diplomatic relations in Europe about August 1, 1914. Maybe this World War will blow over, though!

## NEWS OF ALUMNI ASSOCIATIONS

AKRON—THE M. I. T. CLUB OF AKRON, OHIO.—Dr. Lewis has been coming out to Akron about every two weeks for the past three years. Inasmuch as he is taking over a great deal of Dr. Walker's work at the Institute, his visits here will necessarily be less frequent. Because of this, the men who have been in his classes here or in other ways have come in direct contact with him and his keen, inspirational personality gave him a dinner at the University Club, of Akron. W. J. Kelly, '09, was toastmaster and presented Dr. Lewis with a six-foot slide rule. Dr. Lewis responded and gave a talk on the Institute's Industrial Plan and Laboratory Methods of Teaching. P. W. Litchfield, '96, vice-president and factory manager of the Goodyear Tire and Rubber Company, and R. C. Hartong, chief chemist at Goodyear were called on. Mr. Hartong spoke of the inspirational value of Dr. Lewis' work. Mr. Litchfield spoke of the future of the Goodyear factories. He asked Dr. Lewis to be on the lookout for Chinese men, Australians, Frenchmen and South Americans for Goodyear organizations in their native countries.

There were thirty-three men at the dinner, among whom were the following M. I. T. Alumni: P. W. Litchfield, '96; J. E. Hale, '08; W. J. Kelly, '09; W. N. Drew, '10; K. B. Kilborn, '11; J. H. Dunlap, '11; W. S. Wolfe, '12; B. H. Hale, '14; W. P. Keith, '14; C. N. Hand, '17; L. R. Westbrook, '17; G. A. Sackett, '18; and A. W. Carpenter, '13.

Recently the Technology men in Akron made plans for some pleasant get-togethers this summer. All men coming to Akron are urged to affiliate with the Akron chapter by notifying the secretary. There are no dues. We run our chapter on a pay-as-you-go system. There are now eighty-one men in our chapter, over forty of whom belong to the Goodyear organization.—*F. L. Cook, Secretary, 462 Sumatra Avenue, Akron, Ohio.*

ALBANY — TECHNOLOGY CLUB OF EASTERN NEW YORK.—We have decided to change the headquarters of our association from Albany to Schenectady on account of the greater number of men located in Schenectady.—*Norman A. Lougee, Secretary, General Electric Company, Schenectady, N. Y.*

CINCINNATI—THE CINCINNATI M. I. T. CLUB.—The annual dinner and bowling match of the Cincinnati M. I. T. Club was held March 6, 1920 at Schmiesing's Restaurant. Twenty-two members were present.

The following officers were elected: president, John M. Hargrave, '12; vice-president, Nathan Ransohoff, '10; secretary, Fred W. Morrill, '07; treasurer, David Davis, '97; executive committee, C. R. Bragdon, '07, Rudolph Tietig, '98, Edward N. Kruckemeyer, '11.

The Club meets for lunch every Tuesday at the Cincinnati Automobile Club. Their old rendezvous, Schuler's Cafe, has succumbed to the

prohibition wave but all Tech men will find the old welcome in the new place.—*Fred W. Morrill, Secretary, Ferro Concrete Company, Richmond and Harriet Streets, Cincinnati, Ohio.*

**NEW HAVEN — NEW HAVEN COUNTY TECHNOLOGY CLUB.**—Another very successful house meeting was held Saturday, January 31, at the home of H. M. Wilcox, '05. A very lively debate was staged between Edwin Upham and John Bradley on the resolution "That there should be a League of Nations as defined by the Treaty of Versailles." John Bradley, acting for E. H. Davis of Waterbury who was unable to be present on account of serious illness, won the affirmative. It was a bitter cold night, but Wilcox came to the rescue with red hot mince pies. A good time was had by all—twenty-five men present.

Several new men have made themselves known and we are pleased to add them to the roll of the New Haven County Technology Club: Henry Dowst, A. C. Walker, Vincent Maconi, Charles Stockman, Floyd Pitcher, Joseph G. Chaffee, Watson Goodyear, George Schneller, Carroll Smith, Lester Perrin, Ralph Yerxa, William Bassett, Jr., Charles H. Farist, Ralph Holbrook, Arthur Jameson, Rev. P. C. Pearson.

Chester Dunlap is back from England making Kolynos Dental Cream. Major Lawton has returned from France.

The following men have left town: A. W. Johnson with C. E. Knoeple, Industrial Engineers, E. C. Weaver is now located in Springfield, Alden Merrill is in Buffalo, Clinton LaFetra has moved to New York, with the Federal Adding Machine Co.—*Roy L. Parsell, Secretary, 235 Park Street, New Haven, Conn.*

**NEW YORK — TECHNOLOGY CLUB OF NEW YORK.**—Arrangements have been made by Mr. Ralph N. Whitcomb, '05, Chairman of the Business Opportunities Committee, whereby the Division of Industrial Co-operation and Research at Cambridge can be acquainted with the positions open and the men available in the New York area. By this co-operation it is expected that the wants of employers as well as those of available Technology men will be realized more quickly. Positions available and men in the market will be published as usual in the bulletin of the Club, but the constant changes and the new opportunities make the publication a little behind and the only way to know the latest is to drop a line to Mr. Whitcomb at 43 Exchange Place, New York City.

Entertainment nights will be resumed on Friday nights in March and April under the direction of Mr. Fred B. Cutter, Chairman of the Entertainment Committee. These get-together parties were suspended for some time because of the death of President Maclaurin. It is expected that the enthusiasm awakened by the Endowment Fund Drive will result in bringing an unusually large crowd out at future meetings and Mr. Cutter has planned to have unusual talent. Some interesting talks by good speakers are planned but the idea is to make the gathering more in the line of a "Tired Tech and Business Men's Party" and no long lectures are allowed in the makeup of the "nights."

The recent visitors to the Club include: Alexander Harvey, E. Rebholz, B. Pedersen, Leslie A. Hoffman, Washington D. C.; Alfons Alven, Weehawken, N. J.; G. F. Halfacre, Palmertown, Pa.; George

W. Balsevran, Newton, Mass.; G. R. Diehl, South Bethlehem, Pa.; Schuyler Hazard, Albion, N. Y.; William C. Lynch, San Francisco, Calif.; Dugald C. Jackson, Cambridge, Mass.; Carrol H. Shaw, Worcester, Mass.; Roland G. Shell, Ancon, Canal Zone; Edward J. Tucker, New Haven, Conn.; Donald W. MacArdle, Syracuse, N. Y.; H. E. Beebe, Ipswich, South Dakota, T. L. Hinkley, St. Paul, Minn.; George Burnap, Washington, D. C.; Eli Burnap, Brookline, Mass.; A. Le Patrick, Elyria, Ohio; John D. MacRae, Oleen, N. C.; H. W. Daniels, Nanking, China; H. W. Nightingale, Canal Zone.—*Frank Mathesius, Jr., Secretary, 17 Gramercy Park, New York, N. Y.*

NIAGARA FALLS—NIAGARA FALLS TECHNOLOGY CLUB.—A joint meeting of the Niagara Falls and Buffalo Technology Clubs was held on April 1 at Brown's in Tonawanda. It was a "meet us halfway party." The dinner was good and all enjoyed the bowling. The games were close, but Captain Mangan managed to bring his team across a few pins ahead of Captain Gorham's men in the deciding game. Messrs. Pollard and Gorham were appointed a committee to investigate possibilities of a week-end outing to be held before the summer season opens.

Those present from Buffalo were: M. Gorham, '93, D. F. Potter, '92, M. L. Fish, '95, J. B. Neal, '15, Sampson, '15, and L. C. Flett, '18. From Niagara Falls: H. L. Noyes, '90, E. T. Pollard, '02, A. T. Hinckley, '08, R. H. White, '05, R. E. Gegenheimer, '10, I. W. Wilson, '11, N. Duffett, '11, E. H. Mangan, '12, P. G. Savage, C. L. Smith, '15, R. E. Hyde, '12, R. G. Brown, '16, E. L. Hamman, '16.—*E. T. Pollard, '02, Secretary, 464 Thirteenth Street, Niagara Falls, N. Y.*

PHILADELPHIA—TECHNOLOGY CLUB OF PHILADELPHIA.—One of the best results of the Endowment Fund Campaign so far as the Philadelphia Club is concerned is a better spirit among the local Alumni. The drive was the means of bringing together in an essential common purpose Tech men of the district. A distinct increase in interest in the Tech Club of Philadelphia and its work has been noticeable. Our opportunity rests in taking full advantage of this awakened spirit and of making it into a real, constructive force among Technology Alumni.

George Gibbs, '00, was with us at the January meeting and gave a very interesting story of his work abroad. In February we heard the thrilling tale of the flight of the NC-3 across the Atlantic by Commander H. C. Richardson. In spite of one of the worst snowstorms of this most abnormal winter, the meeting was one of the best attended of the year.

A very successful ladies' night was held at the March meeting. It was not a dance either, but a Tech Alumni, Dr. Alice W. Tallant, was the drawing card. The meeting was preceded by a dinner at the Engineers' Club. Dr. Tallant told in an intimate and most interesting manner of her experiences in the devastated regions of France as director of the Smith College unit and later as a member of the American Committee for Devastated France.—*M. B. Dalton, Secretary, Liberty Mutual Insurance Company, 22 South Fifteenth Street, Philadelphia, Pa.*



SEATTLE—TECHNOLOGY CLUB OF PUGET SOUND.—Russell H. White, '16, has recently been elected secretary and will furnish notes from the Coast in the next issue. — *Russell H. White, Secretary, 3329 East Madison Avenue, Seattle, Washington.*

URBANA — TECH CLUB OF THE UNIVERSITY OF ILLINOIS. — At the last election of officers the writer was elected as secretary of the local organization to replace Mr. A. C. Willard and relieve him of his arduous duties. The organization has been holding its regular monthly luncheons on the second Saturday of each month at the University Club. We have done that which would be considered the impossible in Boston. We have united with the Alumni of Worcester Polytechnic to form a Technology Association. The president of our association is J. T. Rood of Worcester Tech. The distance from the seat of our early jealousies has enabled us to work together with great harmony and pleasure in the midst of this alien environment of the Illini tribe.

We have no business meetings to report nor no definite accomplishments as an organization to assist Tech nor what Tech stands for. As individuals we have attempted to do our share and believe that the results recorded from Urbana are worthy of our attempts. — *H. E. Babbitt, Secretary, 204 Engineering Hall, Urbana, Ill.*

WASHINGTON — WASHINGTON SOCIETY OF THE M. I. T.—The completion of our Endowment Fund Campaign was followed by our annual meeting at which the following officers were elected for 1920: president, F. W. Swanton, '90, United States Patent Office; vice-president, J. W. Clary, '96, Bureau of Construction and Repair, Navy Department; secretary-treasurer, A. E. Hanson, '14, Bureau of Standards; executive committee member: Major A. M. Holcombe, '04, formerly Chief of the Army and Navy Patent Board, and now with the patent law firm of Emery, Booth, Janney & Varney.

At the first meeting of the new executive committee, the president announced his appointment of H. N. Calver, '14, chairman of the membership committee and J. A. Tobey, '15, chairman of the entertainment committee, who hold respectively the positions of assistant director and sanitary expert with the Health Service of the American Red Cross. The executive committee voted that these chairmen be invited to attend its meetings. The unanimous re-election of Mr. Henry A. Morss, '93, as Alumni Council representative for Washington was accompanied by an expression of the hope that Mr. Morss might find it possible to make a personal report during the year to the Society. The committee further planned for a board of representatives to work in co-operation with the executive, membership, and entertainment committees, as well as to assist the treasurer in collecting dues from backward members. The personnel of this board will include men in the different Government departments and offices who can easily and effectively get in touch with the larger part of the Tech men in Washington. Our Endowment Fund Campaign showed this to be the most practical method of getting in personal touch with the Alumni and their pocketbooks, for by far the majority of pledges were secured by sub-committees organized and working in the departments. Members of this board will also be

authorized to act as deputy collectors to receive or extract without mercy dues from all Tech men who fail to respond to the appeals of the treasurer delivered by Mr. Burleson. (Washington Alumni who have not yet sent in their dues take notice).

A recent circular letter to Washington Alumni brought out the following departures or changes of address: E. C. Casselman, '15, 723 Hill Avenue, Wilksburg, Pa.; Capt. D. P. Marvin, '09, United States Coast Guard, ordered to New London, Conn.; Lt.-Comdr. E. F. Enwright, United States Navy, Philadelphia Navy Yard; F. F. Bell, '10, P. O. Box 704, Gorman, Texas; George J. Easter, Niagara Falls, N. Y.; Lt. J. W. McCausland, United States Navy, 4121 Drexel Boulevard, Chicago, Ill.; J. A. Robinson, Superintendent, Grinnell Company, Providence, R. I.; H. W. Treat, '14, Buffalo, N. Y. Letters to the following were returned, forwarding address unknown: H. L. Lyman, '04; William C. Purdy, '13; A. W. Pope, Jr., '18; Charles A. Chayne, '19. Correct addresses to the last four named would be appreciated by the Secretary.—*A. E. Hanson, '14, Secretary-Treasurer, Bureau of Standards, Washington, D. C.*

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## THE ROLL OF HONOR

John Wetherell Friery, '18, died on October 6, 1918.

Woodruff Leeming (Lieutenant-Colonel), '91, died on November 20, 1919, as a result of overwork in service.

## NEWS FROM THE CLASSES

1868

ROBERT H. RICHARDS, *Secretary*, 32 Eliot Street, Jamaica Plain, Boston, Mass.

The class secretary of '68 has been laid up with a mild attack of influenza and pneumonia. The attack came on about January 20 and he was out and taking short walks about March 15. He is now all well but is on short commons as to evenings, trolley cars and crowded places.

*From the Transcript:*

"John Mason Little, who for many years has been considered as one of Boston's best-known business men, with large real estate interests, died October 24, 1919, at his residence at 317 Dartmouth Street, after illness which had lasted only about five or six weeks, and which had its beginning while he was at his summer home, 'Brier Gate,' on Little's Point in Swampscott.

"Born in Boston on July 14, 1848, Mr. Little was the son of the late James L. Little and Julia Augusta (Cook) Little. He traced his ancestry back to the earliest history of this country and was a descendant of Thomas Little, a Plymouth colonist of 1630, and of Richard Warren, of the 'Mayflower.'

"Mr. Little was educated at Chauncy Hall School and the English High School, with afterward a course at the Massachusetts Institute of Technology, where he was graduated in 1868. He began his business career as a clerk in a dry goods commission house in Boston, later taking up other important interests especially real estate, in this city and at the North Shore.

"He had served as president and previously as treasurer of the Boston Chamber of Commerce and as president of the Real Estate Exchange.

"He became a member of the Boston Merchants' Association and had held office as treasurer of that organization. He became affiliated with the American Bank Note Company, and within a short time his ability led to his being chosen a director for New England. He was also a number of years president of the Associated Board of Trade.

"He had served as a vice-president and as treasurer of the Boston Chamber of Commerce and president of the Real Estate Exchange, but his chief work, in recent years, had been the management of the estate of his late father, James L. Little, whose interests have been conducted as the Pelham Trust. John Mason Little, as manager of the estate, brought about the construction of the new Little Building at Boylston and Tremont Streets, on the site of the former oldtime Hotel Pelham. Since 1889, Mr. Little had been at the head of these interests, which fell to his charge after the death of his father.

"Mr. Little had been a director of the Boston Port and Seaman's Aid Society and president of the Good Government Association and was treasurer of the New England Civic Federation. His clubs were the Union, Algonquin, Merchants, Boston City and Technology, in Boston, and the Tedesco Country Club in Swampscott. He had travelled extensively abroad.

"His long connection with Arlington Street Church and his service in its behalf was one of the chief factors in Mr. Little's career, as for thirty-five years he was an active member of the prudential committee of the parish and for a quarter of a century served as chairman of the committee. His late father was chairman of the committee which had charge of the building of the church in 1862.

"Mr. Little on January 14, 1872, married Miss Helen Beal, who died in 1911, leaving seven children, all of whom now survive their father. They are: Mrs. George L. Clarke of Brookline, formerly Miss Julia A. Little; Dr. John Mason Little, Jr., also of Brookline; Mrs. Charles W. Ogden of New York City, who before her marriage was Miss Ida G. Little; Miss Grace A. Little of Boston, Amos R. Little of 'Halfwayland,' Lincoln; Miss Helen Little of Boston, and Mrs. William E. Whitelock of Marlboro, who was formerly Miss Louisa A. Little. Miss Grace Little and Miss Helen Little have made their home with their father. Of these survivors of Mr. Little, it will be recalled that his son, Dr. Little, a Harvard '97 man, formerly was associated with Dr. Wilfred T. Grenfell in Labrador. He married Miss Ruth Esther Keese of Lawrence, whom he met in the ice fields of Labrador, where she had been aiding Dr. Grenfell in his missionary work. Mr. Little's other son, Amos R. Little, Harvard '03, was at one time a member of the Massachusetts House of Representatives.

"In addition to the children who survive Mr. Little, he leaves three brothers, Philip Little and David M. Little, both residents of Salem, and Arthur Little of Boston, of the architectural firm of Little & Browne.

"Mr. Little delighted to go into the country districts, especially along the coast, where he became familiar with the old seamen and the customs of the seaboard. Many of his vacations were spent in hunting, and his home bears testimony to sustain the verdict of his friends, that he was a crack shot and expert fisherman. He collected many trophies, including deer's antlers and moose heads. Another diversion was a fondness for art modelling. He made one of the most unusual collections in existence with his own hands, from red wax and from clay, proving himself an artist as well as a sculptor. He called his collection the 'Improved Order of Red Men,' and had many of the most famous characters of the day in caricature.

"One strong interest of Mr. Little and which dominated his career was that for the purification of politics and the upbuilding of the movement for good government in Massachusetts. From the very beginning of his business life he had evinced a curiosity and a courage of conviction which may be distinctly traced to his early New England ancestry. He fought graft with an uncompromising vigor and resourcefulness that drew forth admiration even from his enemies. He was prominent in the Dewey election fraud case in 1909. During the administration of Governor Bates Mr. Little was appointed to hold the chairmanship of the commission to revise the building laws of this State. He was deeply interested in the historic landmarks of the city of Boston and a supporter of every movement to safeguard them."

John Little was a fine fellow and jolly companion and he entered into our sports with zest. He always played the game fairly.

Since the announcement of Ellery C. Appleton's death in the April issue, Mrs. Appleton has written the secretary a letter from which we are glad to print the following extracts:

"For some reason, Mr. Appleton made out a record of his professional education and experience last August, and a copy was found amongst his papers.

"Speaking of his pride in any special piece of work: he always took such pride in his work, that he put his very best in the smallest as well as the greatest: was never satisfied till all was as nearly perfect as possible, and his work was always pronounced first class. Of his work before we were married, I do not know much. One thing was a big bridge over the Kalamazoo River in Michigan, which was pronounced by the State Inspectors to be the best built bridge in the State. Also the West Shore Railroad which he was building a part of when I became acquainted with him was a very difficult and noteworthy work. His work from 1909 to 1912 inclusive, on the Winston-Salem Road, also received the highest commendation from every source.

"I think you also know Ellery was of ancient lineage, dating back to 1414, the oldest record being held in England. That I believe is older than the oldest English Peerage. If I mistake not, the first Duke was 'created' in 1480.

"Ellery C. Appleton and Lillian Barnes. Married, September 6, 1893. Children of above:

Katherine S. Appleton (deceased)  
Francis Ellery Appleton  
Linda M. Appleton Hart  
Florence J. Appleton Hurlburt  
Edith L. Appleton Carstensen  
R. Leslie Appleton  
Charles E. Appleton."

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1871

EDWARD WARREN ROLLINS, *Secretary*, Dover, N. H.

No report has been received from the secretary.

From the Boston *Evening Transcript* of January 31, we learned that Frank L. Fuller, well known as a civil and hydraulic engineer, with offices in Boston, died suddenly on Friday at his home in Wellesley Hills. He was born on July 11, 1848, in that part of Needham which is now Wellesley, and was the son of Hezekiah and Emeline (Jackson) Fuller. He received from the Massachusetts Institute of Technology, in 1871, his B. S. degree in civil engineering and from that time had practised his profession in Boston and New England.



Some of Mr. Fuller's more important work has included the first survey of Brattleboro, Vt.; the dam and sewer system in Ware; water supply systems, including new works and extensions at Wellesley, Ware, Marblehead, Foxboro, Monson, Arlington, Webster, Uxbridge, Winchendon, Waltham, Shirley, West Groton, Acton, West Brookfield, Dudley, Methuen, Plainville, Franklin, N. H., Northfield, Vt., and Woodstock, Vt.

Mr. Fuller was a member of American Society of Civil Engineers, the Boston Society of Engineers, American Water Works Association, New England Water Works Association and American Public Health Association. He belonged to the Wellesley, the Congregational and the Appalachian Mountain clubs. He was a Republican in his politics. Mr. Fuller in 1881 married Julia L. Morrill of Boston, by whom he is survived.

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#### 1874

CHARLES F. READ, *Secretary*, Old State House, Boston, Mass.

The correspondence which the class committee on Endowment Fund has carried on with former students of '74 and the interviews with members regarding the same subject have brought out various items of news which may be of some interest. It is gratifying to the class president and secretary to record first that the contributions to the Fund accredited to '74 amounted to \$13,790. Of this sum there was one gift of \$10,000, one of \$1000, two of \$500, one of \$300, one of \$200, seven of \$100, four of \$50, seven of \$25, two of \$20, twelve of \$10, and eleven of \$5; in all forty-nine contributors, of whom forty-four were living members of '74. This number is seventy-three per cent of the entire membership accounted for, which, with one exception, is the highest percentage record of all the fifty-one classes. It is specially gratifying to note that the list of contributors contains three in memory of former members now deceased, *viz.*, Pond, Silsbee and Warren.

In connection with the Fund drive the class president had pleasant conferences with classmates Colt and Stevens in New York. At a dinner given in the interest of the Fund in Providence and attended by President MacLaurin and prominent men in Providence, Colonel Colt was the presiding official.

The members of '74 attending the Alumni Dinner and Endowment Jubilee at Walker Memorial January 10 were Messrs. Barrus, Chase, G. B. Elliot, A. T. Elliot, Fish, Flanders and Read, and they all found it a most enjoyable and memorable occasion.

Stevens, who has left Hartford, is now engaged in the cotton yarn business in New York City. Bouvé, who was in the Government service in connection with the war, has resumed his law practice in Boston. Blunt is United States Assistant Engineer in Chicago, and president of the Tech Club of Chicago. He took an active part in the Fund drive, and came in touch with Holbrook, Mudge and Frank H. Pond, Jr., son of our late classmate. Chase has recovered his health and is engaged in his wonted activities. He has been again elected vice-president of the New England Historic Genealogical Society. Nickerson received an ovation at the recent dinner of the Gillette Razor Company officials on account of the important part he has taken from the first in the design and construction of machinery for making blades. He is still the mechanical expert of the company. The secretary has been elected president of the Old School Boys Association of Boston. Russ has retired from the carriage business, and at this writing is in Florida. The painting "The Winthrop Fleet" from the brush of our deceased member, Halsall, who died in December, is still on exhibition at the rooms of the Bostonian Society in the Old State House, and the secretary will be glad to show it. The secretary regrets to announce the deaths of Messrs. Foster, Hubbard, Shaw, Teulon and Whitney, former members of '74.

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#### 1875

EDWARD A. W. HAMMATT, *Secretary*, South Orleans, Mass.

The thirty-eighth annual meeting and dinner of the Class of '75, Massachusetts Institute of Technology, was held at Young's Hotel, Boston, March 5, 1920 at seven P.M. From various causes the attendance was light, only six men sitting down to the dinner, *viz.*, Bowers, Dorr, Hammatt, Hibbard, Mixer and Simonds. Beal was in the hospital, so could not be with us, and there was a big vacancy at the end of the table where for thirty years or more he has regularly appeared. President Hibbard was delegated either to write to or see Beal on behalf of the Class.

At about nine P.M. the Class was called to order for business. The records of the thirty-seventh annual meeting were read and approved, and the reports of the secretary



ISAAC M. STORY, '77

and treasurer submitted and accepted. Upon motion, the secretary cast a ballot as that of the Class for the following officers for the coming year, and they were declared elected: president, Thomas Hibbard; vice-president, B. L. Beal; secretary and treasurer, E. A. W. Hammatt; executive committee, B. L. Beal, S. J. Mixer, W. P. Willard. President Hibbard reported in a general way the result of the drive for the Technology Educational Endowment Fund, and read some letters he had received from classmates in connection therewith. Adjourned at ten p.m.

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1876

JOHN RIPLEY FREEMAN, *Secretary*.

The secretary, John R. Freeman, is still in India but expects to return to this country about the middle of May.

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1877

RICHARD A. HALE, *Secretary*, Essex Company, Lawrence, Mass.

THE MEMOIR OF ISAAC M. STORY AS WRITTEN BY MEMBERS OF THE CONNECTICUT  
SOCIETY OF CIVIL ENGINEERS

Mr. Isaac M. Story, a member of this Society since February 13, 1906, died at his home in New Haven on May 26, 1918. He was born in Somerville, Mass., on April 28, 1855, and was the son of Isaac Story, a distinguished lawyer who served as judge of the Somerville Police Court from the date it was established in 1872 until his death in 1902. Mr. Story was educated in the public schools of his native city, and graduated from the Massachusetts Institute of Technology, as a civil engineer, in 1877.

Immediately after his graduation he began his professional work as assistant engineer with the Boston and Lowell Railroad Company, remaining with that company until February 22, 1880, when he entered the employ of the Philadelphia, Wilmington and Baltimore Railroad Company. In March, 1881, Mr. Story went to Texas with the Texas-Mexican Railway Company, returning to Boston in August, 1881. Shortly after his return to Boston he was appointed chief engineer of the Boston and Lowell Railroad Company, resigning this position May 1, 1885. For about three years subsequent to this date he was engaged in private business in connection with furnishing granite and supplies for heavy construction work.

On May 30, 1888, he entered the employ of the New York and New England Railroad Company as assistant engineer. That company was at this time engaged in the preparation of a series of elaborate resurvey maps and was making extensive resurveys to relocate and monument the original base line of location. Mr. Story was at first employed in the field and later in preparing the titles and here got his first experience on land title work, on which he specialized in later years. After the lease of the New York and New England Railroad Company to the New Haven, he was employed in the Construction Department of the latter company and had charge of the extension of the Norwich and Worcester Railroad from Allens Point to a connection with the main line at New London.

In 1905 the Department of Real Estate, Right of Way and Taxes was formed and Mr. Story was appointed right of way engineer. The work of re-running and establishing the base line of location and the preparation of standard land title maps was begun under his direction. He developed, however, such a capacity for extensive and thorough investigations that he was later made special engineer of title research and continued on this work until his death.

His investigations, covering the lines of the company in New York City, the Bronx and Westchester County, were especially thorough and extensive. He prepared the title evidence for use of counsel in a great many cases of litigation in which the company was involved with such a degree of attention to detail that the company rarely lost a case prepared by him.

Mr. Story took a great interest in political affairs and was elected a member of the Common Council of the City of Somerville in 1897, also serving in this capacity in 1898. In 1899 he was elected to the Board of Aldermen and again in 1900. In 1902 he was the successful candidate for representative to the General Court from his district, and served as a member of the Massachusetts House of Representatives in the years 1902 and 1903. He was a member of the Republican City Committee from 1896 to 1901, serving as secretary, vice-president and president.

In 1905 he moved to New Haven to take up his new work with the New Haven Company, and became greatly interested in religious work and the civic welfare of the city. He was a very hard working member of the Calvary Baptist Church, taking a great interest in missionary work. He was an authority on general conditions and statistics regarding the missionary work among foreign races both at home and abroad. His greatest hobby was Biblical history and research work and he left at his death a large collection of monographs and papers on Biblical history. Mr. Story was greatly interested in fraternal organizations, being a member of the Masonic Order and Knights of Pythias. He was for a great many years a member of the Boston Society of Civil Engineers, resigning shortly after he moved to New Haven. He was married in 1880 to Adeline Sanderson of Somerville, who died in 1990. He was later married to Emma C. Brookings of Somerville, who survives him, together with two sons and two daughters by the first marriage. Both of the sons are members of the engineering profession.

Mr. Story was of a very quiet disposition and greatly absorbed in his work but he always found time to devote to civic affairs and was highly respected both in his native city and in New Haven. He was very decided in his opinion and when he once began an investigation or took up a matter outside of his regular line of work he was untiring in his efforts to bring everything he undertook to a successful conclusion. He was of a genial manner and his charity was unbounded in the assistance of others who were unfortunate or unsuccessful in all walks of life.

Richard A. Hale was elected secretary-treasurer of the Class of 1877 of the Massachusetts Institute of Technology at its forty-third annual reunion at the Engineers Club, Boston, February 25. Charles A. Clarke of Boston was elected president pro tem in the absence of President Andrews who was unable to be present because of illness. B. T. Williston of Boston was elected vice-president. Charles F. Lawton, superintendent of streets in New Bedford, read a short paper on the early days of the Northern Pacific Railroad. He was engineer of construction for the road in the early '80's and had many interesting experiences including encounters with Geronimo and his Indians who were hostile to plans for western expansion and development. The meeting was during the snow blockade but nine members were present.

We are intending to have a day's outing in June at one of the country clubs and have a golfing meet with those who play. A telegram was received from Fred Wood of the Hog Island Shipping Board extending his greetings to the Class. The Class has not omitted a meeting since graduating and the attendance has varied from nine members to twenty-five. There are about sixty names on the list of which two-thirds are reasonably active members.

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#### 1878

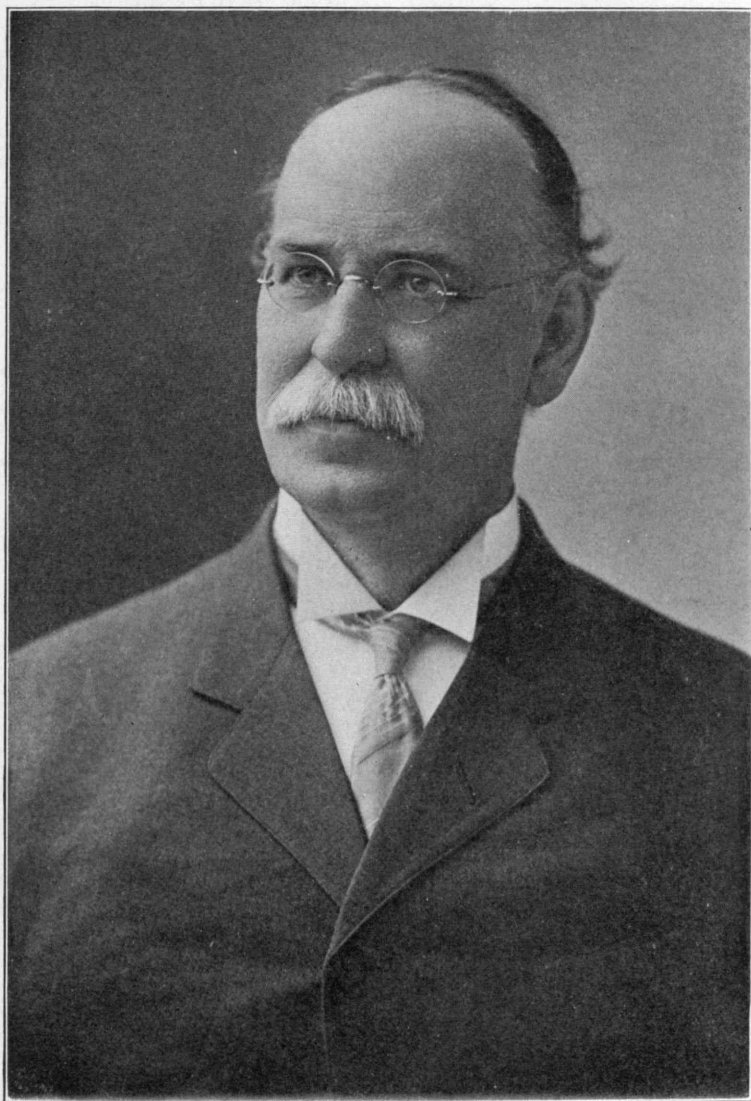
E. P. COLLIER, *Secretary*, 256 Summer Street, Boston

Miss Bessie Tilson Capen, whose death occurred on the eleventh of February, was born in Stoughton, Massachusetts, December 29, 1838, the daughter of Adam Capen of Stoughton and Betsey Faunce Tilson of Carver. Her education began in the district school of her native town in her fifth year, and continued through the grades until the fall of 1854 when she spent a few weeks at Wilbraham Academy. In the spring of 1855 and 1856, she taught in the grammar school of Stoughton, but her inclination toward the pursuit which was to become her life work, was manifested earlier than this, for in the spring and fall vacation of 1851, when she was but twelve years old, she started a little private school, the twenty scholars of which paid her the munificent sum of ten cents per each week. That her first efforts in teaching were successful was shown by the fact that the school was continued during her vacations in the two following years.

In March 1850 Miss Capen entered the Bridgewater Normal School completing the three-term course in July 1857 and in September of the same year took up the occupation which she gave up only when compelled to do so by her last illness, after sixty-three years of congenial work in her chosen profession, than which none has been more helpful to mankind.

From September 1857 until the spring of 1864 she taught in the Shepherd School of North Cambridge, studying in leisure time with private tutors in French, Spanish, Latin, Drawing and Elocution. From 1864 to 1868 she taught in the Wells School in Boston, continuing at the same time her studies in French, Latin, English Literature, Elocution and Geometry. The result of her work in these higher branches of education was a promotion to the Boston Girls' High School, where she remained until the end of the spring term in 1875, still reaching out to add to her equipment as a teacher by studying at the





EDWIN C. MILLER, '79

Massachusetts Institute of Technology, Chemistry, Mineralogy and Botany, also continuing with private teachers in Latin, English Literature and German.

Again her ambition to advance was rewarded by promotion to the charge of the department of Chemistry, at Wellesley College, by which institution she was commissioned to go abroad in the following summer to buy equipment for the laboratory.

She did not return to Wellesley, however, but accepted a position at Smith College, where she began teaching in January 1877, having spent the fall of 1876 in study at the Massachusetts Institute of Technology. At the request of President Seelye, she persuaded her friend Miss Burnham to open a preparatory school for Smith College at Northampton, with whom, after three and a half years at Smith, she united and together they built up the school now known as Miss Capen's School for Girls. At Miss Burnham's death in 1885, Miss Capen took over the school, which she conducted until her death, February 11, 1920.

Miss Capen was the second female student to be admitted to the Institute, having been preceded by a short time by Miss Swallow who later became the wife of Professor Robert H. Richards. The point of view of the registrar of the Institute always amused Miss Capen. When she made her application, he said that a Miss Swallow, a Vassar graduate, had just been accepted, and if they must have a woman about — better two than one.

It is evident that Miss Capen, with the untiring industry and the indomitable will with which she strove to perfect herself in the teaching profession, would have been a success in that profession, no matter what her training had been. Nevertheless, the Massachusetts Institute of Technology can safely claim that it was in great measure responsible for the efficiency with which she carried on any task she undertook.

The secretary takes this opportunity to thank the members of the Class of '78 for the cordiality and cheerfulness with which they responded to his calls for donations to the Endowment Fund.

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#### 1879

FRANK G. STANTIAL, *Secretary*, Merrimac Chemical Company, Everett, Mass.

Our Class has met with a great loss in the death of Edwin C. Miller, who was stricken with apoplexy on Monday, January 26, and died instantly. Ed Miller was one of the most active and prominent members of the Class; for many years he was either president or secretary and spent a large amount of time and energy in the administration of its affairs. Miller came to Technology from the English High and early took a leading part in the affairs of the Class, being its first president before graduation and lieutenant of Company B. He always seemed a natural leader and, while possessed of a dignity which made him appear somewhat older than his classmates, he appreciated a joke and enjoyed a good time. Ed was far ahead of his time when he graduated, being even then a "dry" citizen. Do we not recall the genial way in which he took all the jokes at the graduation dinner in the old "Brunswick." Even in those days he wasn't one of the frivolous kids, but he was a "good old scout" and a good, true friend.

After graduating Miller didn't have to scratch for a job; there was a position waiting for him in the well known and prosperous Henry F. Miller Pianoforte Company and he went to Wakefield as assistant superintendent of the Miller factory, later becoming superintendent, and in 1911 was elected president. He was very successful in his position, and popular with his employees for whom he always had a cheery word and in whom he took a close personal interest.

Living in Wakefield he took a prominent part in the affairs of the town, being for ten years chairman of the Municipal Light Board and a member of many different committees on matters relating to civic improvements, among other positions being Chairman of the general executive committee in charge of the two hundred and fiftieth anniversary celebration of the town of Wakefield. In 1893-1894 Miller represented Wakefield in the State legislature.

In spite of a very strenuous business life, the number of Miller's outside activities was quite wonderful. He was at different times president of the Boston Music Trades Association and of the Boston Rotary Club, a member of the Boston Chamber of Commerce and of the National Association of Piano Manufacturers.

As an alumnus of M. I. T. he had been president of the Alumni Association, first treasurer of the Technology Club and took an active part in raising funds for the Walker Memorial to which he devoted a large amount of time, as he was a great friend and admirer of President Walker.

In fraternal life, he was a member of Reading Royal Arch Chapter, of Golden Rule Lodge, A. F. and A. M.; a past patron of Harmony Chapter, O. E. S.; one of the most active members of the Richardson Light Guard, and a past master of Wakefield Grange and past master of the Middlesex-Essex Pomona Grange. When the Grange was organized Mr. Miller was one of its most ardent workers.

The funeral services were held at the Wakefield Congregational Church on Thursday, January 29, and were very fully attended by friends representing the many and varied pursuits in which Miller was interested both socially and in business. The Class was represented by Stantial, Gooding and Cabot, Stantial being one of the pall-bearers.

We shall all miss Ed for he was a true friend and a good classmate.

1880

GEORGE H. BARTON, *Secretary*, 89 Trowbridge Street, Cambridge, Mass.

As usual the secretary of '80 has little to report except about his own doings or something connected with him. The class of '80 did fairly well in connection with raising the Endowment Fund but not so well as might have been wished. But when it is recognized there are only four living graduates and that former members not graduates have kept up but little if any connection with the Class in later years perhaps congratulations are in order that the Class did as well as it did.

The secretary has been connected with a movement during the past and present year that bids fair to be of value to the children of Cambridge, and possibly in the future may be of value to Technology. The City of Cambridge in co-operation with Harvard University, with a committee of Cambridge ladies and with the Teachers' School of Science, of which the secretary is director, has established a Children's Museum at 5 Jarvis Street, Cambridge, in a building furnished by Harvard University. The building is shared mutually by the Geological Department of the Teachers' School of Science and the Children's Museum. All the collections of minerals, rocks, fossils and lantern slides of the school are placed at the disposal of the Museum free of charge. The larger and finer specimens are placed on exhibition, while the smaller are arranged for class instruction. The city and the committee of ladies and private individuals have contributed other cases and specimens of birds, articles of clothing, implements, dolls, etc., from many parts of the world, as Greenland, Hawaii, Samoa, Egypt, China and other countries, and many pictures for the walls. The museum part of the work is under the direct charge of Miss Margaret Tucker, a graduate of Vassar College, assisted by Miss Ruth E. Crawford, a teacher of Cambridge.

On March 4, 1920, the secretary was much gratified by the arrival of his first grandchild, Miss Eleanor Beede Barton, at Fall River, Mass.

1881

FRANK E. CAME, *Secretary*, 17 Metcalfe Apartments, Westmount, Montreal, P. Q.

FRANK H. BRIGGS, *Assistant Secretary*, Hotel Puritan, Boston, Mass.

From Ed Warren: "Mrs. Warren, the kid and I left Colorado Springs November 3 and came direct to La Jolla, Calif., and here we have stayed and expect to remain for some time, perhaps all summer, though our plans are as yet unsettled. We are taking life easy, living in a cottage just big enough and the small girl plays in the sand and is growing apace. She has been outdoors much more than she could have been at home, but take it all around we prefer Colorado to California even if we do get an occasional blizzard." (Note by F. H. B. The "small girl" is seventeen months old.)

George A. Mower writes under date of the first of April as follows:

"Needless to say I am very glad to hear from you and trust that everything is going well with you and our other classmates.

"The conditions over here are not all that we could wish, but at the same time we think that this country is sound, and we cannot understand how anybody in America has got the idea that old England is in anything but a sound financial condition. Of course the war has left them with a big debt but they have plenty of energy and plenty of resources. Business is excellent, the only difficulty is in getting the materials and labor to fill orders."

James Lund has been elected vice-president of the Merrimac Chemical Company and is in charge of production at plants.

1882

WALTER B. SNOW, *Secretary*, 136 Federal Street, Boston, Mass.

The thirty-eighth anniversary dinner which was scheduled for Thursday, February 5, was abandoned because of the severe snowstorm on that date, but Hall, who had come down from Winchendon, French, Jenkins, Walker and the secretary had a pleasant luncheon on that day at the Engineers Club. On February 27, the Class met for the regular dinner which was attended by Darrow, Herrick, Jenkins, Keyes, Munroe, Walker, Warren and Snow.

George F. Chapman, who has spent most of his time in Wyoming since early Tech days, is now permanently located at 13 Winter Street, Plymouth, Mass.—Albert C. Brackett was heard from in connection with the Class meeting and reported that during the snowstorm period he had been practically cut off from the world at his home in Framingham, Mass.

James P. Munroe is out with another book, "The Human Factor in Education," of which the Boston *Evening Transcript* speaks as follows:

"There can be no doubt that Dr. Munroe's work on education, considered broadly as a prime factor in the making or marring of national character, is notable. Much is written on the various aspects of child training, both from the physical and psychological viewpoint. Dr. Munroe considers both sides of the question, and his arguments are sound, his experience wide and his conclusions such as one could wish might be followed and adopted by the schools. Beginning with a chapter on the 'Real Superman,' Dr. Munroe goes on to touch with no light hand on the pervading evils of the penny-wise parent. Perhaps this type more than any other is responsible for the etiolated specimens of humanity represented at too many public schools. Much could be written on the subject of the loss of physique and of mentality by the child burdened with an old-fashioned or opinionated parent, who has a more thoughtful eye for the weekly budget than for the growing child. Much also could be written on the prevalence, especially among the lower classes, of considering all things from the economic rather than the broader ethical standard, a view which is doubtless responsible for the greater part of the wanton disregard of principle and rectitude today. . . . The abnormal conditions arising from the war just ended have given rise to complications in the business world of new types. As an expert in reconstructive and vocational work Dr. Munroe writes luminously on the technological and other difficulties and endeavors thereby implied. He is optimistic of the future even for the war-disabled. He points out that few men are totally incapacitated to earn. He enlarges on the need of coupling efficiency and sanity of mental outlook, eliminating the charity taint. He urges the advantage of a national service year. He realizes that war activities had a distinct and definite idealistic trend in the making of the better grade of American. Any one who has been brought into contact with men and boys before and after their camp training can vouch for the change for the better in morale and physique even in the unpromising specimens. . . . Economic considerations prevent the speedy adoption of such a changed system. But if America will awaken to her peril, she will realize that only by adopting such a course as that urged by Dr. Munroe can she escape the long trail of evils engendered by the idler fostered in discontent, and culminating in mob rule."

As Snelling was unable to attend the Class dinner he sent along, by request, a sort of story letter giving a brief account of his activities during the last couple of years, which reads as follows:

"You asked me for a sort of story letter, so here goes for a brief account of my activities for the last couple of years. When we finally got into the war, of course architecture was knocked endwise and I went down to Washington and made a desperate effort to get into the service, thinking that with my knowledge of French and Engineering I could be very useful to the Government. I had no political influence whatever and therefore they would have none of me at any price. In the meantime, some gentlemen, whom I had known in a business way in former years, were interested in a company which controlled a piece of military equipment which had been adopted by the United States Army. These gentlemen made me a proposition to go over to France and make an effort to introduce this piece of equipment into the French Army. I accepted their offer and went to Paris in February, 1918, and was there all through the bombardment of the Big Bertha and the night air raids and I can tell you that life was some exciting, in the city of light, at that time. In fact Bertha nearly fell on my head three separate times. I had all my trials of the piece of military equipment successfully put through and I think a good deal of business would have resulted, had it not been that just about this time the armistice came and then, of course, nobody would talk military matters any longer. About that



time I fell ill and went down to Florence where I joined my sister, Mrs. Crowninshield, whose home is in that city. I stayed with her for some six months and then had to come to America on account of the severe illness of my wife, who in her turn had worked over here on some war activities and finally broke down nervously and who, ever since last spring has been in a sanitarium.

"Architecture still refuses to pick up, owing to the high prices of labor and material and I am now associated with the company on whose letterhead this communication is written. The Manufacturing and Sales Corporation is a company promoted to exploit inventions commercially which are of proven utility. They are at present putting on the market the Fowler Electric Clock and owing to my excellent relations with my brother architects, I have already been able to influence quite a large amount of business for them."

In response to the notice of the dinner on February 5, Ely sent a brief reply stating that he was ill and unable to attend. But there was no intimation that the matter was serious and so the report of his death on Sunday, February 8, came as a distinct shock. The following is from the *Providence Journal*.

"Edward Francis Ely, chairman of the Board of Park Commissioners of this city and member of the Metropolitan Park Commission, died at his home, 36 Prospect Street, yesterday morning of pneumonia. He went to his home suffering from a severe cold about a week ago and last Thursday seemed to be improving, but on Friday morning pneumonia developed, which resulted in his death at three o'clock yesterday morning. Mayor Gainer and Jesse H. Metcalf, chairman of the Metropolitan Park Commission, expressed deep regret upon receiving news of his death. Both declared that the community had suffered a great loss and paid tribute to Mr. Ely for his services to the city and State. Mr. Ely was born in this city February 12, 1858. He came of sturdy New England stock on both sides. He was a son of Dr. James Witchell Coleman and Susan (Backus) Ely. Dr. Ely was a native of Windsor, Vt., and was a graduate of Brown University (1842) and of the Harvard Medical School. He began practice in Providence and soon became recognized as one of the prominent physicians of the city. His eldest son, Joseph Cady Ely, was for years a prominent attorney in this city, having been admitted to the Rhode Island bar in 1872.

"Edward F. Ely was graduated from Brown University in 1879 and from the Massachusetts Institute of Technology in 1882. He began the study of architecture in the office of Stone & Carpenter in this city. In 1882-3 he was assistant in the department of applied mechanics and 1883-5, instructor in architecture at the Massachusetts Institute of Technology. Until 1888 he was in the employ of well known Boston architects. During that year he removed to New York City, where he remained until 1895, when he located in Providence, becoming a member of the firm of Hoppin & Ely, from which he withdrew in 1907, and had not since been in active practice.

"In 1907 he was elected chairman of the Board of Park Commissioners and held that office continuously until the time of his death. He was ex-officio a member of the Metropolitan Park Commission and was for some time its chairman. Last year, when the original Metropolitan Park Commission was abolished and a new body organized under the same name, Mr. Ely was retained on the Board because of his exceptional knowledge of public parks. Mr. Ely also served on the City Board of Recreation, becoming a member because of his office as chairman of the Board of Park Commissioners.

In 1904, Mr. Ely was elected President of the Rhode Island Chapter, American Institute of Architects. He was identified with many societies and clubs, among them Hope, Providence Art, Agawam Hunt Clubs and Squantum Association. He was a member of the University Club of New York and the Technology Club of Boston."

#### 1884

HARRY W. TYLER, *Secretary*, M. I. T., Cambridge, Mass.

The secretary had the pleasure of dining recently with Ambassador Bonillas in Washington. He is about returning to Mexico as a probable nominee for the presidency. Bonillas expressed his reluctance to assume this rather serious responsibility, but regards it as important that his country should elect a civilian president. He is not at all encouraged by the progress already made under Carranza, and at the recent flattening out of the American newspaper campaign of systematic misrepresentation of Mexican affairs. The good wishes of all members of '84 will attend him in the coming campaign. Mrs. Bonillas has recently set out for Naples, Italy, to join a married daughter, while another daughter is the wife of the newly appointed minister to China and Japan, and the son is a mining engineer in South America.

1885

I. W. LITCHFIELD, *Secretary*, 28 Austin Street, Newtonville, Mass.

The annual dinner of the Class will be held at the Boston Athletic Club, Saturday evening, April 17, as per notice. We are assured of the presence of President Robertson, who has been preparing a speech all winter. The big event of the year will be the reunion of the Class, which will be staged in the vicinity of the summer White House on the shore of Buzzards Bay. The committee in charge consists of Pierce, Page, Brown and the secretary, who have been in consultation nearly all winter and have evolved a most attractive program.

There will be an All-Technology Reunion in June, although at this writing the date is not certain. It is proposed, however, to hold the reunion late in June to assure good weather; in this case the Class celebration will be held either just before or just after the All-Technology event, and, in view of the courtesy of the Alumni Association in pulling off the reunion at this time as a mark of appreciation of the importance of the Class of '85, it is expected that the attendance will be a record-breaking one. Large posters giving details of the coming events will be issued very shortly. Eighty-five has figured largely in the temporary organization which is now administering the affairs of the Institute; Morss is Chairman of the Corporation Committee and Talbot of the Faculty Committee. At the Alumni dinner in February there were three speakers from the Class of '85, among them the two members mentioned above.

Charley Eaton went away last fall to some southern clime and if he has returned he has not made his presence known. It is hoped, however, that he will be here for the class dinner; in any event he has registered a Nazarite's vow to attend the reunion in June. As before stated Nat Robertson has been engaged all winter in preparing a speech which he will deliver at the Class dinner in a costume once worn by Alex McKim when he appeared in a *pas de deux* with Artie Plaisted back in our salad days. Those who remember this costume will be expecting a treat. George E. Steele, our athlete, has had a little touch of teething trouble, measles and chicken-pox this winter but otherwise has been in the pink of condition. Frank Page, who has been eking out a rigorous existence in Florida encroaching closer and closer to the Cuban coast, is supplied with munitions. Frazer has been entrusted with the problem of moving the new Springfield mansion to some point in the Bahamas, where Jack Harding will redecorate it in anything but water colors; it is hinted that Frank already purchased a large tract of Bicardi Island and that he will invite the Class to hold its next reunion there.

Bartlett has disappeared from his old haunts in Boston and is said to be located in New York. Synchronously Bates disappeared from New York and has been located on the Pacific coast, but letters to his new address have failed to bring responses. The secretary has tried to start a chatty correspondence with a number of members of the Class without results; in the event of further silence, these columns will bristle with reminiscences relative to said parties of much interest to the general public.

1887

EDWARD G. THOMAS, *Secretary*, Toledo Scale Company, Toledo, Ohio.

Walter C. Fish, who has been for many years general manager of the Lynn works of the General Electric Company, has resigned this position and will become manufacturing engineer of the International General Electric Company. He has recently spent six months investigating conditions in Europe and sailed in January to take up permanently his new work.

Fred Todd's friends were always active and loyal friends and several of them, companions in his trips to the woods, conceived the idea last June of expressing what he meant to them by erecting a bronze tablet to his memory on one of the streams in eastern Maine which Fred loved so much. C. R. Richards, '85, writes me as follows:

"Accordingly, we had the tablet made and one day in the second week in August, three of us joined Fred's brother, Will Todd, at a camp on Tomah Stream where Fred had built his last campfire two years before his death. By great good fortune there was a large and well placed granite boulder on the bank of the stream a short distance below the camp. We had brought down cutting and drilling tools and the next morning attacked the surface of the rock. It was a rather slow and difficult job but by sunset, we had faced off the surface, drilled the holes and bolted the tablet in place, riveted over the bolts and cemented around the edge. The tablet reads as follows: 'To the Memory of Fred C. Todd, who died November, 1918, in his fifty-third year. A man who loved the open

silent places, and who was loved by real men. He looked life in the face with a clear eye and a smile. The road he travelled was good because he was there. Romance and adventure kept his spirit young and an inspiration to all who spoke his language. By Tomah Stream, dear to him from boyhood days, four of us who loved him placed a simple memorial of what he meant to us. August, 1919.

"It was a great satisfaction to all of us when we started next morning for our two days' paddle to Princeton and the train, to pass by the tablet, and to feel that we had left a silent witness of affection and regard to Fred Todd in one of the chosen spots he loved to haunt."

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1888

WILLIAM G. SNOW, *Secretary*, 95 Milk Street, Boston, Mass.

The secretary only recently learned of the death on August 24, 1919, of our classmate, David Allen Center, who graduated in Course VI. He was married September 4, 1899, to Miss Elizabeth Hoyt Steele. He was assistant in physics, Pennsylvania State College in 1889, from which he went to Harvard as a student in mathematics, receiving the degree of A. B. in 1890. After this he became teacher of physics in the Woodbridge School, New York City. He became principal of this school in '94 and continued in that capacity for many years. Recently he has made his home in Gloucester.

The Thompson & Lichtner Company succeeding to the consulting engineering practice carried on by Sanford E. Thompson have added ten engineers to their force and are handling some large problems of design and in industrial management. They are rapidly extending their field of activity, now carrying on work in at least ten states. Their offices are at 136 Federal Street, Boston, and 19 Liberty Street, New York.

A very interesting, exhaustive and finely illustrated book entitled "The Turnpikes of New England," has been brought out by Major Frederic J. Wood. The *Boston Transcript* has this to say of it:

"The reader of Major Wood's remarkable work will certainly echo the appreciation given it in a brief preface by Mr. Frederick J. Whiting, who ends it with these flattering paragraphs: 'The present work is exceptional among productions of its class, inasmuch as its author approaches his subject from at least three very different points of view and with equal success. There is a fine balance in the treatment of the engineering, the economic and the archeological aspects of the turnpikes and toll-bridges, and for this reason the work may be safely commended to the general reader, who may be assured that in this case at least an interesting narrative does not imply superficial knowledge. So far as my own knowledge of the subject goes, Major Wood has compiled the first exhaustive and authoritative work on American turnpikes. The title he has chosen would seem to limit his discussion to the turnpikes of New England, yet in reality he affords us a general survey of the entire country.

"Major Wood has devoted ten years to his task. As a civil engineer, with his long experience in railroad field-work, he has possessed exceptional facilities for investigating his subject in its geographical, its engineering and its economic aspects. But the turnpike is more than an engineering or an economic concept to Major Wood. His interest in far-off forgotten days impregnates every part of the present work, vitalizing the conclusions from a study of the engineering and economic data."

The book is published by the Marshall Jones Company, 212 Summer Street, Boston, in which business James C. T. Baldwin is now engaged.

The Rockefeller Foundation has reached out and claimed part of the service of Doctor Edwin O. Jordan, chairman of the department of hygiene and bacteriology at the University of Chicago. He has been made a member of the International Health Board of the Foundation, but will remain with the university.

Doctor Jordan graduated from the Massachusetts Institute of Technology in Course VII and served on the State Board of Health there for two years. He is an authority on health and sanitation.

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1889

WALTER H. KILHAM, *Secretary*, 9 Park Street, Boston, Mass.

The annual Class dinner was held at the St. Botolph Club on March 9, 1920, with the following members present: Z. W. Bliss, A. L. Davis, H. B. Emery, E. V. French, H. French, W. H. Kilham, L. H. Kunhardt, F. A. Laws, W. W. Lewis, G. A. Orrok, G. L. Pearson, F. L. Pierce, W. W. Underhill, G. C. Wales, J. Whiting, A. L. Williston.

Owing to the absence of President Thurber, who was detained in Milton by important public duties, Frank Pierce presided. H. B. Emery made his first appearance for a good many years and at the request of the chairman gave an account of his past life and endeavored to excuse his absence. A letter from Dunphe was read, in which he described his difficulties during the recent blizzards as head of the street-cleaning district of New York, which includes Coney Island, while Cartwright, in a brief but pepful postal explained the difficulties of coming from the farm to the dinner in a hay motor, considering the state of the roads. Hart gave a lucid account of the general state of affairs at Tech and other members contributed their views on general topics, among them General Pearson, who explained that he at present was more interested in lower education than higher. About thirty per cent of the members present came from New York, Providence, Lowell and other more distant points. It is hoped that the Boston men who live near the center will show up better on future occasions. There was a unanimous expression of approval for having another reunion at Wianno next June. Presumably the Class will be circularized before this item appears in the REVIEW.

E. V. French has been elected president of the Arkwright Mutual Insurance Company. He has been since 1906 vice-president and engineer. Mr. French joined the inspection department of the Mutual Companies in 1892 and was active in many of the inspection and engineering problems in the department from that time until coming to the Arkwright Company. During the great war he spent a year in France as chief of the Bureau of Fire Prevention, applying such methods as were possible to safeguard the enormous stocks of war materials, the shops, hospitals and other properties which were of such vital importance to our armies.

Frank R. Field, who has been for the past twenty-three years, manager of the Denver branch office of the Jeffrey Manufacturing Company has left that field of endeavor and taken up the representation of the same firm's interests in the Southwest with office headquarters at 439 Herman W. Hellman Building, Los Angeles, Calif.

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#### 1890

GEORGE L. GILMORE, *Secretary*, Lexington, Mass.

The engagement has been announced of Miss Mary Royce, daughter of Mr. and Mrs. Frederick P. Royce, of Pine Knoll, Dedham, Mass., to Mr. Roland M. Baker, of Boston, Mass., and North Hampton, N. H. Miss Royce is a member of the 1918-19 Sewing Circle and the Vincent Club. During the war she was on duty at the Brooks Hospital as a nurse. Mr. Baker served as a second lieutenant in the 101st Field Artillery, and in 1916 was on the Mexican border.

Mr. Guy C. Emerson, consulting engineer for the City of Boston, under date of March 1 made a report showing extravagance and inefficiency characterizing the changes in the forces of the Public Works Department as compared with the independent departments which existed in 1909.

We regret to report the death of our classmate, Mr. Wisner Martin, who died on May 24, 1919.

Charles Hayden has been elected Director of the Montreal Locomotive Works, Ltd. In February, Charlie was laid up with a severe cold, but we are glad to report that he is all right again. Your secretary had the pleasure of deLancey to lunch with him on February 20, in Boston. Darragh, who is on the labor department of the United States Shipping Board, left the last of February for the Pacific Coast, where he will probably be tied up for several weeks in the adjustment of labor troubles. Andrew W. Woodman was in Boston in January and lunched with your secretary.

Mr. and Mrs. Pierre duPont were in Honolulu in January. Mr. and Mrs. Frederick P. Royce were among the guests for the New Year's eve celebration of the Dedham Club.

Among the Committee of Twenty-Five named by the Association of Railway Executives to confer with the Director-General in Washington, to consider railroad labor problems arising out of relinquishment of Government control was Charles Hayden. Prof. Elton D. Walker, head of the Department of Civil Engineering, State College of Pennsylvania, in October was commissioned major in the Engineering Reserve Corps of the army.

Chic Wait is with the Lord Construction Company, 105 West 40th Street, New York.—John B. Dixon's address is now 36 Lincoln Avenue, Glen Falls, New York.—Bertram H. Davis is located at 111 Francis Avenue, West Tulsa, Oklahoma.—Austin D. Boss' home is at 130 Windham Road, Willimantic, Conn.



At the annual alumni dinner, held at Walker Memorial, January 10, 1920, the following members of the Class of '90 were present: Spaulding Bartlett, John Balch Blood, Ernest H. Brownell, Harry B. Burley, William H. Collins, Darragh deLancey, John O. DeWolf, George L. Gilmore, Harry M. Goodwin, Francis H. Kendall, Atherton Loring, George A. Packard, Allan H. Rogers, Willard H. Roots, Frederick P. Royce, Charles W. Sherman, Willard C. Tilson, Robert T. Walker, Leonard C. Wason.

Billy Poland has returned from Europe where he had been for nearly five years, having gone over with Hoover in the spring of 1915 and was director for the Commission for Relief in Belgium and Northern France. Last fall he went to the Far East on a commission and while there was taken prisoner by the Kurds and narrowly escaped. On March 10 an informal luncheon was given to him by some of the members of the Class in New York at the Lawyers Club and eleven of the Class were present.

The Alumni Council has decided to hold a Technology Reunion some time in June so that we shall also hold our Thirtieth Anniversary Reunion at that time. As soon as our plans are made, notice will be sent to you and we hope that most of you will plan to be present to renew old friendships. All who attended our Twenty-Fifth Reunion declared that they could be with us at our Thirtieth and we hope that the rest of you will be with us also. We shall probably plan for a two or three days' outing and you certainly cannot miss it as you will want to hear Poland and others tell of their war experiences. Now classmates just jot it down on your pad that you are booked for Boston sometime in June and that particulars will be sent to you soon.

## 1891

HENRY A. FISKE, *Secretary*, 275 West Exchange Street, Providence, R. I.

Mr. Henry K. Mansfield died in Providence, on January 5, of pneumonia. "Harry" Mansfield was educated in the public schools of Salem, and after completing his course at the Massachusetts Institute of Technology attended the Harvard Medical School. For several years he conducted some stores in Salem and Lynn and was on the Salem School Committee. With the late Walter L. Harris, he operated the Ferncroft Inn for a number of years, but discontinued his connection with this property a short time before his death. He was a Mason, and a member of the Ancient and Honorable Artillery Company of Boston.

## 1892

GEORGE H. INGRAHAM, *Secretary*, 2052 Cornell Road, Cleveland, Ohio.

No report has been received from the secretary.

The Boston *Herald* of February 15, published the following, which will be of interest to Mr. Wells' classmates.

"At the Tuileries, last evening, Miss Louise Bailey Smith, daughter of Mrs. Margaret Ryerson Smith, was married to Mr. Edward Castle Wells by the Rev. George J. Prescott.

"Mr. and Mrs. Wells will make their home in Tuscaloosa, Ala."

## 1893

FREDERIC H. FAY, *Secretary*, 15 Beacon Street, Boston, Mass.

No report has been received from the secretary.

Frank F. Phinney, president and general manager of the Warren Steam Pump Company, died at his home, Warren, Mass., March 10, after three years' illness. He was born in Stoughton, and his mother, Mrs. John G. Phinney, still lives there. He attended the old Highland Military Academy, Worcester; took a preparatory course at the Berkeley School, Boston, and completed his education at the Massachusetts Institute of Technology, Course II. He became manager of the Warren Steam Pump Company in 1902 and shortly after-

ward was elected president. He was a director of Southbridge National Bank, vice-president of Warren Savings Bank, a member of Exchange and Puritan Clubs, Boston; Megantic Club of Maine and Canada, Eastern Yacht Club of Marblehead and the Grasse River Club of the Adirondacks.

1895

WALLACE C. BRACKETT, *Secretary*, 105 Washington Street, Boston, Mass.

Adden & Parker are architects of a number of buildings now being erected at Shawsheen Village, a part of Andover, Mass., in connection with a new housing project for the American Woolen Company. Wint Parker, '95, is a partner in this concern. — Winkley, special agent of the Insurance Company of North America, was elected President of the New England Insurance Exchange at the annual meeting of this association in January. — A report of the death of Frederick E. Cox has just been received. We understand that he has been in ill health for quite a number of years.

During the recent drive for the Endowment Fund, several '95 men made it a practice to meet in the grill room of the Boston City Club for lunch at twelve-thirty on Mondays. So pleasant were these gatherings that it has been decided to keep them up. If every '95 man would make an effort to lunch here once in a while we are sure he would be well repaid.

The Boston *Transcript* of December 27, 1919 had an article descriptive of the good work Bourne is doing in making easily available data on architectural subjects at the Boston Public Library. As head of the Fine Arts Department, Bourne spends about half his time at the Library.

From the New York *World*, February 20, 1920, we learn that Gerard Swope has just been awarded a Distinguished Service Medal by Secretary of War Baker for his work under Major-General Goethals with whom he was associated as Assistant Director of Purchase, Storage and Traffic. He was largely concerned in planning and executing the reorganization of the Army Supply Service which was concentrated in the Department of which General Goethals was head. Swope is President of the International General Electric Company and lives at 25 West 67th Street, New York City.

Bill Swift is back from Greece. Came back on purpose to be here in time for the Reunion. He is now associated with Ford, Bacon & Davis of New York. — John Moore has just telegraphed the secretary that he is sending in his questionnaire so we know he will come to the Reunion.

The following data will, we think, be interesting to the Class. Our mailing list including graduates, associates and men who have at some time or other been associated with '95 consists of three hundred twenty-seven names, for which we have accurate addresses. From this number we have already received one hundred eighty-three questionnaires. Of the three hundred twenty-seven men, one hundred thirty-two were graduates and there are only eighteen of these who have not yet sent in their questionnaires. Of all living graduates there are but three for whom we have no address: Logan, Taft and Hugh Tucker.

Please every one send in their questionnaires at once. Please every one save June 4, 5 and 6, and come to the Reunion. The committee will be very much disappointed if we do not get out at least one hundred men. Special notice, giving full details, will be mailed later.

Do not forget that in these times printing costs money and we need all we can get for the Class Book. If you haven't already contributed, send at once to the secretary, at 105 Washington Street, Boston.

It is with deep regret that the secretary announces the death of Robert K. Sheppard at Amesbury, Mass., on January 20, 1920.

Sheppard was one of the best known men of his period at Tech and one of the most highly regarded. Entering with the Class of '94, an enforced absence, due to illness in his third year, brought him into the ranks of '95, with which Class he graduated.

Soon after leaving Tech he became connected with the Washburn & Moen Manufacturing Co. at Worcester, Mass., and later with the American Steel and Wire Co.,—first at Worcester, then at Chicago and finally at Philadelphia. In 1912 he became sales manager of the wire department of the Diamond Rubber Co. at Akron, Ohio, and shortly afterwards sales manager of the same department of the B. F. Goodrich Co. at the same place. In August, 1915, he became connected with the Simplex Wire Co. of Boston as manager of sales and was later made assistant treasurer.

While with the Goodrich Company, he was one of the organizers of the Associated Manufacturers of Electrical Supplies and served as president of that organization. He was also a member of its Board of Governors and continued to serve on the Board until recently when the condition of his health prevented further service. Besides discharging his regular duties with the Simplex Company and as a member of the Board of Governors of the Associated Manufacturers of Electrical Supplies, he served throughout the war as Chairman of the War Service Committee of the Association.

About two years ago he underwent a severe surgical operation, to the effects of which, coupled with his strenuous duties during the war, is attributed the breakdown in his health which occurred last year. Withdrawal from business brought about an encouraging improvement in his condition, but about Christmas time he grew rapidly worse and finally succumbed. He is survived by his wife, who was Grace M. Denison of Newtonville, Mass., and one daughter, Ruth, a student at Wellesley.

He was a member of the Technology chapter of the Delta Kappa Epsilon Fraternity and held many important undergraduate offices. He was Editor-in-Chief of '94 "Technique," '95 Class Day Orator and served on numerous boards and committees. He was '95's first secretary-treasurer after graduation, serving from 1895 to 1899. With his early membership in '94 and his later membership in '95, and his broad activities outside the narrower limits of either Class, he had an unusually wide circle of friends, by whom he was universally admired for his courage, constructive capacity and his sound intellectual and moral qualifications. By his business associates he was held in the same respect and confidence which he commanded in his classmates. Those who were fortunate enough to know him well will ever cherish recollections of his high-mindedness, culture and the moral and steadying influence of his personality.

The twenty-fifth reunion outing of the Class of '95 will be held June 4, 5 and 6, 1920, at Fenwick, near Saybrook, Conn., at the Riversea Club (the seashore branch of the Lake Placid Club). The location is on Long Island Sound near the mouth of the Connecticut River, three miles from the Saybrook Junction Station on the main line of the New York, New Haven and Hartford Railroad. Saybrook Junction is one hundred and six miles from New York, one hundred and thirty-three miles from Boston and forty-five miles from Hartford. There will be facilities for golf, tennis, bathing, fishing, etc. Full details will be mailed each member of the Class in due course. Be sure to save these dates, June 4, 5 and 6. If you cannot stay for all three days, stay as long as you can.

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1896

CHARLES E. LOCKE, *Secretary*, M. I. T., Cambridge, Mass.

J. ARNOLD ROCKWELL, *Assistant Secretary*, 24 Garden Street, Cambridge, Mass.

The Boston *Traveler* in its "Whirling Hub" column is apparently featuring '96 men. A while ago it was Harry Grush. Now it is Harry Brown and Harry Sherman, to wit:

January 22. "Of all sticklers for perfect order in arrangement of papers, etc., on his desk, give me Harry Brown of General Electric Company. Saints preserve the man who, during 'Harry's' absence from his chair, dares pick up anything without putting it back just where he found it. He's specially particular as to arrangement of a half-dozen pencils, of varied length, which are always on his right and placed in accordance with their length. First one about two inches long, the others tapering up to a brand new one of full length and just out of the sharpening machine. Mr. Brown isn't 'finicky' in most things, but he is on that desk of his."

January 29. "Last week you may have read a paragraph in this column as to the 'orderliness' of Harry Brown's desk down in the General Electric Company's offices. Here's a tale right in the same line. During Mr. Brown's absence, a few days ago, one of his co-workers, with the idea of 'keeping up the good work,' and having the desk in even better order than ever, on its owner's return, told an office boy to clean out certain drawers of old letters, etc., and forward them by mail to Mr. Brown at his home in Winchester. The boy did as he was bidden, sending them by parcel post. Not being received, a 'tracer' was put on to the package, and when the postoffice officials found out what it

contained, namely, first-class matter, 'Harry' was forced to pay something like four good dollars to get his property. Next time he goes away he's going to padlock his desk."

February. Harry Sherman of Jamaica Plain, and of the city's surveying department, has at last picked out a neckscarf to suit him. He tramped all over the city, spite of storm and slush, before he hit it. Result, a wonderful dark blue with a brilliant yellow border. Friends say it's first time they ever knew 'Harry' to show the 'yellow streak.'"

Who would have thought that such fine boys would have developed into fussy old men. Both Harrys claim that they are laying for the writer of these paragraphs and if caught it will go hard with him.

The *Harvard Graduate Magazine* speaks of Gurney Callan as follows:

"John G. Callan, Chairman of the Department of Mechanical Engineering at the University of Wisconsin, who is now on leave of absence, has been appointed lecturer at the Graduate School of Business Administration for the balance of the current academic year. Mr. Callan, who will serve as lecturer in factory management, is a graduate of Massachusetts Institute of Technology in the class of 1896. From 1896 to 1909 he was connected with the General Electric Company in various capacities, spending much of his time in experimental work and in the study of turbines. From 1908 to 1915 he was with Arthur D. Little, Inc., where he undertook a wide variety of work as a mechanical and electrical engineer. Since 1915 he has been Professor of Steam and Gas Engineering and Chairman of the Department of Mechanical Engineering at the University of Wisconsin. His teaching has been largely in the business side of engineering. He has also done much consulting work in the field of factory management. Professor Callan adds to the staff of the Business School the point of view of a business engineer. Callan has also been engaged by the Eastern Manufacturing Co. for solving some of its problems in Maine.

Louis Morse writing from York, Pa., reports that he was in Savannah for two weeks in January serving as an expert witness in a litigation case of the York Manufacturing Co. It was a fine experience to bask in Southern sunshine at 65 to 85 degrees but a cruel change when he had to return to cold and snow that has been the lot of Pennsylvania as well as the other northeastern states during the past winter.

'96 was well represented at the meeting of the American Public Health Association at New Orleans last fall, the three men who attended from New England being Steve Gage of Rhode Island, Lythgoe of Massachusetts and Charlie Moat of Vermont.

Bradley Stoughton appeared in Boston March 24 to attend a meeting of the local section of the American Institute of Mining Engineers in his official capacity as secretary of the national organization. He reported that he had recently returned from a country-wide tour during which trip he did not run across a single '96 man.

It is with regret that the secretary reports that he has received notice of the death of four members of '96. Frank A. Kendrick, who was a special student in School of Mechanic Arts, died February 5, 1918 in Florida. He had been practically an invalid since 1905 when his health failed him. Walter M. Hollis's death has been reported by Harry Baldwin but the exact date has not been ascertained. For a long time after graduation Hollis was located in Lynn but later moved to New Hampshire. Cyrus C. Howland passed away February 23, 1920. He had been employed continuously in the Public Works Department of the City of Boston up to about two years ago when failing health obliged his retirement.

John Manahan's last illness started with the grip. The following account is taken from the *Boston Transcript*. "John H. Manahan of 231 Edge Hill Road, East Milton, an electrical engineer and former football player of the Massachusetts Institute of Technology, died on Tuesday, February 4, at the Peter Bent Brigham Hospital from pneumonia, aged forty-six years. He was born in Boston on December 15, 1874, the son of Thomas S. and Ellen T. (Slattery) Manahan. He was graduated from the English High School in 1892 and from the Massachusetts Institute of Technology in 1896. He played football three years at English High School and four years at Massachusetts Institute of Technology, and was elected captain of his college team in his senior year. For a number of years he was associated with the Sargent & Lundy Company in Chicago specializing in large power plant construction. Later he was with the American Stoker Company. He returned to Boston in 1903 and was associated in an executive capacity with the E. T. Slattery Company, resigning in 1908 to engage in research work, which resulted in the invention by him of a new type of internal combustion engine now in process of completion. Mr. Manahan was an enthusiastic yachtsman and devoted each summer to this sport. He owned an interest in the forty-six footer "Altair," which was built by Herreshoff. With his brother, Edward, he handled this craft in many races. He was an organizer and director of the firm of Manahan, Inc., Boston. He is survived by five brothers and two sisters, including Robert F. Manahan, a mining engineer; Edward, Ernest and George



Manahan, of Manahan, Inc., Paul R. Manahan, a rubber tire manufacturer of Warren, Ohio; Mrs. Edith E. Aldrich and Miss Marie L. Manahan. Miss Katherine Slattery is his aunt."

Always modest and easy going, John had shown himself but little to his classmates in recent years, but had preferred to make his headquarters at the Yacht Club and to pursue his hobbies of engine invention and yachting. Those of us who sought him out found him more of a giant than ever but felt that his big-heartedness and genialty kept pace with his body increase. His engine design was for an 'Oil Vapor Breach Charging Two-Cycle Internal Combustion Engine' which would combine the two functions of vaporizing and exploding crude oil which was to be the fuel used. While not developed to the point of commercial application it contained several very promising features.

The death of Joe Hewett was reported in the last issue but at that date his will had not been published. It contained a bequest of two hundred thousand dollars to the Massachusetts Institute of Technology. The interest on the sum is to be paid to the widow during her life and after her death the sum of twenty thousand dollars is to be set aside as a perpetual trust fund, the interest of which shall be used for providing scholarships in the school, preference in awarding the scholarships to be given to men from Brockton. The remainder of the two hundred thousand dollars is to be used for general purposes.

The following changes of addresses have been received: Mrs. Paul Gibson Burton, 1718 Q Street, N. W., Washington, D. C. — William Douglas Smith, Empire Zinc Co., Canon City, Colorado. — Charles Johnson, 221½ North Third Street, Barberton, Ohio. — Edward B. Gordon, Jr., care of Pillsbury Engineering Co., Minneapolis, Minn. — William B. Corson, care of W. & J. Sloan, 46 Fifth Avenue, New York City.

Corson has been in poor health for a considerable period, suffering from a nervous breakdown. Mail addressed to Lieut. Reginald Norris in France has been returned. Does any one know where he is?

Do not forget to plan to attend the All-Technology Reunion and the special '96 celebration this coming June. Full details will be announced later.

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#### 1897

JOHN A. COLLINS, JR., *Secretary*, 67 Thorndyke Street, Lawrence, Mass.

CHARLES W. BRADLEE, *Assistant Secretary*, 54 Canal Street, Boston, Mass.

Under date of March 5, Walter E. Spear of New York City writes as follows: "I am leaving New York next week for Athens, Greece, on an engineering investigation for the firm of Ford, Bacon & Davis, New York City. We are to make studies and estimates for a water supply and sewerage system for the City of Athens. My address there will be care Ford, Bacon & Davis, Bank of Piræus, Athens, Greece."

Wilfred Bancroft, II, is now located at the Stillwater Worsted Mills at Harrisville, Rhode Island.—Amos E. Gillespie is with the Hamilton Iron and Steel Company, Hamilton, Ohio.

Arthur Hopkins, XI, writes as follows: "Mr. G. H. Pratt, whom you may remember as a '97 man (Course V), met me in Providence recently and he tells me he is now with the sales department of Wallace & Tiernan Company, 349 Broadway, New York City. He has had quite an interesting career, largely in the selling of various supplies, and is now working on an apparatus for the chlorination of water for domestic and factory purposes."

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#### 1898

ARTHUR A. BLANCHARD, *Secretary*, Massachusetts Institute of Technology, Cambridge.

Paul B. Wesson has left the Clinton Wright Wire Company, Palmer, Mass., where he has been mechanical superintendent for six years. He has acquired an interest in the Hampden Brass Company of Springfield, Mass., of which he is secretary. His business address is now 262 Liberty Street, Springfield and he has made his home at 88 Oak Grove Avenue, Springfield.

E. S. Chapin left for Europe a short time ago in the interests of the Associated Dyestuff Industries. His mission is to secure the greatly needed supplies of certain dyes which are understood to be in stock in Germany. He is likely to remain abroad several months.

We have the announcement that Everett N. Curtis has become a member of the firm of Jones, Addington, Ames & Seibold, attorneys and counselors, whose main offices are in Chicago. Curtis will have charge of the New York office of the firm as heretofore.

The sad news has just reached us of the death of R. W. Pratt on February 2, 1920, at his home, 2847 Broxton Avenue, Shaker Heights, Cleveland, Ohio, after a three-day illness. Mr. Pratt was recently appointed by the county commissioner to make a survey of four Cuyahoga county townships as preliminary work for a \$15,000,000 county water and sewer system. He had been engaged in similar work in Pittsburg, Detroit, Toledo and other cities.

Shortly after he came to Cleveland in 1913 Mr. Pratt was retained by the city for sewage disposal work. He supervised the installation of the West Side filtration plant. For six years, after being graduated from Massachusetts Institute of Technology, he was chief engineer of the Ohio board of health in Columbus; in President Taft's administration he was sent to Cuba for a year to inspect work on the sewage and water system of Havana.

Mr. Pratt was born in Boston. He married Miss Elizabeth Southwick of New York. Besides his widow he is survived by four children.

Clarence Goldsmith has been appointed assistant chief engineer of the Committee on Fire Prevention and Engineering Standards of the National Board of Fire Underwriters after twelve years' service with that organization. Mr. Goldsmith is now located at 234 South LaSalle Street, Chicago, Ill., in charge of the branch engineering office of the National Board from which the engineering questions in connection with the application of the "Standard Schedule for Grading Cities and Towns" in cities in the Middle West will be handled.

THE ALL-TECHNOLOGY REUNION WILL BE HELD JUNE 21, 22 AND 23.

#### 1899

W. M. CORSE, *Secretary*, 603 Elm Street, Westfield, N. J.

Miles S. Richmond writes that he has become associated with Bradlee & Chatman Company of Boston, Mass., as sales engineer. They are making a specialty of factory housing and have just completed fifty houses and a mile and a half of streets and sewers and have already made a layout for the development of fifty acres.—Warren M. Archibald writes that he is very busy preparing material for surveying parties for Greece. The secretary had a letter from him saying that he is more than busy and expected to sail about March 1, with a party. Archibald is working for Ford, Bacon & Davis, New York City.

The secretary spent several pleasant evenings with J. Herbert Richardson in New York recently. Richardson is also with Ford, Bacon & Davis on engineering work.—Albert F. Nathan says that patent law work is keeping him very busy and proves to be both interesting and remunerative. Nathan specializes on work pertaining to machine tools.—The secretary is now located in the vicinity of New York City and would be very glad to hear from any of the members of the Class that are in that vicinity. He is connected with the Monel Metal Products Corporation in Bayonne, N. J., as general manager, and can be reached at their office, telephone Bayonne 1181.

Hervey J. Skinner has opened an office of his own in Boston and is doing work in a consulting capacity along chemical engineering lines. Skinner specializes in paper and pulp problems. He has only opened this office recently but has secured several very good contracts which promises success for the venture.

Tom Robinson was in New York recently and spent a very pleasant half-day with the secretary. Tom reports that building shows a decided improvement and that the work in his office is getting well back to normal.

#### 1901

R. L. WILLIAMS, *Secretary*, 107 Waban Hill Road North, Chestnut Hill, Mass.

Our Class was represented at the annual Alumni dinner in Walker Memorial, January 10, by the following, R. H. Stearns, A. W. Rowe, J. F. McGann, F. B. Walker, T. H. Taft, C. H. Dennison, W. A. Read, E. Seaver, and R. L. Williams. We were glad to have our

class president, Edward Seaver, with us once more as he has been away from Boston a number of months on work for the Shipping Board. The dinner was a lively one from start to finish and enjoyed by all.

O. S. Stockman is manager of the Armstrong Cork and Insulation Co., at Pittsburg, Penn. C. W. Danforth is manager of the C. W. Danforth Company, analytical and consulting chemists. His business is at Youngstown, Ohio. H. T. Chandler has recently built a house for himself in Milton, Mass. He is superintendent of the Walter Baker & Company's plant in Dorchester.

Leonard P. Wood, who was a major during the war, is now back again with the Board of Water Supply of the City of New York and is assistant designing engineer. M. B. Foster, of Sound Beach, Conn., holds down the following jobs: treasurer, Shield Electric Co., secretary, Southern Export Corporation, and vice-president, Raw Silk Trading Co. M. C. Brush, president of the American International Ship-building Company entertained at Hog Island, March 27, a delegation from the annual meeting of Technology Clubs Associated at Philadelphia. Edward P. Fleming is research metallurgist on smelter smoke problems and metal losses for the American Smelting and Refining Co. of Salt Lake City, Utah.

With deep regret I announce the death of Arthur P. Merrill, December 13, 1919.

The Alumni office reports that mail sent to the following men has been returned and would like to obtain their new addresses: G. V. Sammet, G. A. Clark, C. L. Brown, J. R. Anderson, Jr., and W. H. Dooley.

The following recent changes in address have been received: Prof. A. B. McDaniel, 1316 New Hampshire Avenue, N. W., Washington, D. C.; B. S. Macintire, in care of Du Pont Powder Co., Georgetown, South Carolina; P. S. Baker, 2701 Broderick Street, San Francisco, Calif.; F. H. Bond, Jr., 245 State Street, Boston, Mass.; M. C. Brush, 120 Broadway, New York; G. I. Cross, 33 Addison Street, Arlington, Mass.; W. C. Appleton, 53 State Street, Boston; L. M. Backus, 1316 Boren Avenue, Seattle, Wash.; F. K. Baxter, 1834 San Pedro Avenue, Berkeley, Calif.; Prof. E. F. Church, The Polytechnic Institute, Brooklyn, N. Y.; H. R. Gilson, in care of U. S. Rubber Co., 1790 Broadway, New York; H. C. Marcus, Mento Park, Calif.; P. W. Moore, Hubbard Woods, Ill.; and W. M. Vermilye, 35 Gates Avenue, Montclair, N. J.

#### 1902

FREDERICK H. HUNTER, *Secretary*, Box 11, West Roxbury, Mass.

BURTON T. PHILBRICK, *Assistant Secretary*, 585 Boylston Street, Boston, Mass.

The annual banquet of the Alumni Association at the Walker Memorial on January 10 brought out the largest gathering of classmates for nearly four years, those present being Boardman, Eames, Edwards, Fitch, Geromanos, Haskell, Hunter, Kellogg, Mahar, Moore, Patch, Burt Philbrick, Ritchie, Robinson, Seabury, Starr, Teague, Grant Taylor, David P. Thompson, Upham, Usher, Walker and Doc Williams. This was the first gathering that Usher and Thompson have ever attended. They both received warm welcome and expressed their intention of coming frequently in the future.

Norman Borden is located in Woodstock, Vermont, 19 Mountain Avenue. We have not yet learned what his activities are in this location. Nash is with the Philadelphia Rubber Works Co., Land and Title Building, Philadelphia. — Sears is at the United States Naval Ordnance Plant, South Charleston, W. Va. He writes: "Have been here since October 1918, we are building the fifteen-million-dollar Armour Plate Plant, acting as our own contractors. My end is the planning, estimating and material division with the title of supervising engineer. As we are operating under Civil Service regulations and purchasing under navy regulations it has been some task, but we are getting the plant built." — Manning is chief draftsman with the Noiseless Typewriter Co., of Middletown, Conn. — Major Lloyd B. Haworth, Q. M. C., is located in the Coca Cola Building, Baltimore, Md. — C. F. Gardner is manager of the Plymouth Electric Light Co., Plymouth Mass. He offers his services in assisting any Tech men who may visit Plymouth in connection with the Pilgrim Tercentenary. If the entire Alumni should go to Plymouth at the Reunion next June, Gardner would find he had quite a contract on his hands. — Charlie Stover is vice-president and engineer of the What Cheer and Hope Mutual Fire Insurance Companies with offices in the Grosvenor Building, Providence, R. I. His residence address is 204 University Avenue, Providence. — Kenneth Grant was discharged as Major of the Construction Division of the Army, March 1919. His last work in the service was to take charge of building an addition to Camp Grant to house twenty-four thousand men. Since his return to civil life he has become a member of the firm of Frank

Hill Smith, industrial engineers, making his headquarters at the Dayton, Ohio, office, 1031 Reibold Building. His home address is 112 Wistaria Drive, Oakwood, Dayton. He reports a husky son, John Garnor Grant born May 10 last. — An even larger addition to our Class rolls was the arrival in Brookline, Mass., on June 24 last, of Charles and Betty Edwards. — Francis Mague is located at 32 Danforth Street, Saxonville. — William N. Brown is with the Joseph L. Sheldon Engineering Co., Rockefeller Building, Cleveland. Arthur Harkness is with the Lewis Manufacturing Co., Walpole. — Albert Madero is in El Paso, Texas, where his address is 411 National Bank Building. — Bauchelle is in Salt Lake City, 1609 Walker Bank Building. — Harry H. Saylor, who has for several years been editor of *Country Life in America* resigned on January 1, to become Director of Service for the Atlas Advertising Agency, 450 Fourth Avenue, New York City. He writes as follows: "This change from the editorial to the advertising field is not so revolutionary as you might think at first glance. My work on *Country Life* has always been very largely the presentation, or in other words, the design of the printed page. This presentation in the case of a large and strongly pictorial magazine is perhaps the most important part of the editor's job. This sort of thing has always interested me very much as far back as Course IV days. This change means, therefore, that my work now is the design of the printed page of advertising as compared with the design of the printed page in the editorial section." — Les Millar is with the Steel and Tube Co. of America, making his headquarters at their Chicago office. His residence address is 510 Washington Avenue, Wilmette, Ill. — Mail addressed to John H. Redfield at Swarthmore, Pa. where he was formerly professor at Swarthmore College, has been returned. Any classmate knowing of his whereabouts will kindly report. — Geromanos is starting on a tour around the world, leaving Boston for Vancouver the last of March, sailing from there to Japan. He plans to visit China, the Philippines, India and possibly Australia, returning via the Suez Canal and Europe, taking about a year and a half in the journey, his wife and thirteen-year-old daughter accompanying him.

Word has recently reached us of the death in 1913 of Horace Milliken Smith, Course II. Smith was located in Terra Haute, Indiana, for a number of years, and more recently had been in Chicago with the Liquid Carbonic Co.

Henry H. Saylor, '02, for the past six years editor of *Country Life*, has joined the executives of the Atlas Advertising Agency, New York City, and will henceforth direct its service.

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#### 1903

MYRON H. CLARK, *Secretary*, 1790 Broadway, New York, N. Y.

RALPH H. NUTTER, *Assistant Secretary*, Box 274, Lynn, Mass.

Following is a clipping from the *Electrical Review*: "Samuel B. Tuell, formerly with the Stone & Webster Engineering Corporation, Boston, Mass., is now manager of the Houghton County Electric Light Company, Houghton, Mich. He is a graduate of the electrical engineering course of Massachusetts Institute of Technology and has gained an extensive experience in engineering work in his connection with the Stone & Webster organization, having been employed at Key West, Porto Rico, and other places. He was for some time at Pawtucket, R. I., and was later placed in charge of the utility work at Hog Island, later entering the office of the vice-president."

#### CHANGES OF ADDRESS

Capt. Walter H. Adams, 1661 Rose Villa Street, Pasadena, Calif.; Arthur B. Allen, 825 East 11th Street, New York City; W. Carleton Barnes, South Weymouth, Mass.; George B. Bradshaw, in care of DuPont Dye Works, Wilmington, Del.; (Miss) Jessie N. Braley, The Holman School, 2204 Walnut Street, Philadelphia, Penn.; Howard Breed, in care of The Crane & Breed Manufacturing Co., Cincinnati, Ohio; George W. Broome, in care of Union Carbide Co., Ltd., Welland, Ontario, Can.; Clark A. Bryan, 253 Walnut Street, Carlisle, Penn.; George P. Carmichael, 20 Beacon Street, Boston, Mass.; J. Tyrrell Cheney, 31 Swarthmore Avenue, Swarthmore, Penn.; G. Huntington Clapp, 2 Park Street, Crafton, Penn.; W. Lorrain Cook, in care of Northern Trust Co., Chicago, Ill.; Capt. Claudius H. Cooper, Electrolytic Refinery, Hubbell, Mich.; Harold N. Cross, 75 Winona Avenue, Haverhill, Mass.; James A. Cushman, 28 Central Street, Turners Falls, Mass.; Robert W. Daniels, 16 Harrison St., Brookline, Mass.; John J. Dooley, 137 Fern Avenue, Lyndhurst, N. J.; Walter M. Drury, 1112 Mills Building, El Paso, Texas; Andrew M. Fairlie, P. O. Box 358, Atlanta, Ga.; Henry H. Fales, 59 Ocean Avenue, Brooklyn, N. Y.; Milton J. Firey, Hotel Buchtel, 868 Exchange Street, Akron, Ohio; George H. French,



51 Livingstone Avenue, Pittsfield, Mass.; George H. Garcelon, 1200 Macon Avenue, Swissvale, Penn.; Carlton F. Green, 253 Main Street, Spencer, Mass.; Edwin F. Green, 60 Federal Street, Boston, Mass.; Capt. Walter B. Greeves, Box 642, Beaumont, Texas; Thomas M. Hamilton, Lewiston, Montana; Albert A. Haskell, 498 Belmont Street, Watertown, Mass.; Raymond Haskell, in care of Texas Company, 17 Battery Place, New York City; Mellen Chamberlain Hatch, 25 Broad Street, Railway and Industrial Engineering Company, Inc., New York City; E. Winchester Howell, 151 River Road, Bagota, N. J.; Robert J. King, 48 Bishop Street, East Haven, Conn.; Major Richard M. Lawton, Bayles Shipyard, Port Jefferson, L. I.; Frederick K. Lord, 120 Broadway, New York City; George M. Macdonald, 380 Galena Avenue, Pasadena, Calif.; Charles J. McIntosh, 221 Prospect Avenue, Milwaukee, Wis.; John A. McKenna, 383 O'Connor Street, Ottawa, Ontario, Can.; Benjamin Madero, Ernesto Maderoy Hnos, Parras Coah, Mexico; Arthur S. Martin, United Fruit Company, Preston, Cuba.; George H. Noone, (Mrs.), 198 High Street, Brookline, Mass.; Frederick A. Olmsted, Hood River Spray Company, Hood River, Oregon; Joseph Philbrick, in care of Columbia Chemical Works, 167-41 Street, Brooklyn, N. Y.; Samuel G. Porter, Canadian Pacific Railway Company, A. R. and I. Building, Lethbridge, Alberta, Can.; Miss Julia Pulsifer, 8 Hamilton Avenue, Auburn, N. Y.; Harrie B. Pulsifer, School of Mines, Butte, Montana; Louis B. Rapp, 616 Crawford Street, Middleton, Ohio; Philip B. Rice, Woolworth Building, New York City; Robert L. Richardson, P. O. Box 536, Pawtucket, R. I.; Oliver P. Scudder, 523 Newhouse Building, Salt Lake City, Utah; Casper A. Schmidt, in care of The Empire Zinc Company, Box 1860, Denver, Colo.; George B. Seyms, 224 South Third Street, Philadelphia, Penn.; James S. Sheafe, 5801 Blackstone Street, Chicago, Ill.; George E. Sibbett, 3034 Hillegass Avenue, Berkeley, Calif.; Harry A. Stiles, 97 Oliver Street, Boston, Mass.; Frank Toohey, R. F. D., Concord Junction, Mass.; Irving Williams, 527 Lincoln Way East, Chambersburg, Penn.; Daniel S. Wilson, 34 Powder House Boulevard, West Somerville, Mass.

## 1904

HENRY W. STEVENS, *Secretary*, 12 Garrison Street, Chestnut Hill, Mass.

Eliza Codd, of the Class of '04, Course IV, died in Nantucket, Easter Sunday, April 4, of scarlet fever. After graduation from Technology Miss Codd worked for some time as a draftsman in the office of Lois L. Howe. She studied and travelled in Europe and on her return opened an office in Nantucket for the practice of architecture in which she has done very good work. She was interested in Nantucket Cottage Hospital and served efficiently both on its board of trustees and as treasurer of the corporation. During the war she organized and managed the Red Cross work in Nantucket, her native town. She volunteered for overseas war service with the Young Men's Christian Association, and was sent to France after the armistice was signed, and served as an instructor in drawing in the Hospital Work of the Army Educational Commission. After six months in France she returned to Nantucket and took up her work there, which she carried on until three weeks before her death. Her death will be felt deeply not only by her family and her friends but as a loss to the community in which she lived, whose interests she had close at heart and to whose service she gave herself freely. She was the daughter of William F. Codd of the Class of '76.

## 1905

GROSVENOR DEWITT MARCY, *Secretary*, 246 Summer Street, Boston, Mass.

CHARLES W. HAWKES, *Assistant Secretary*, 23 Saxon Road, Newton Highlands, Mass.

It is with a deep sense of loss that the death of Robert N. Turner, our sophomore class president, is reported. He died on February 25 after a short illness from pneumonia, which suddenly took a turn for the worse after he was thought to be out of danger. The following clipping from the *Boston Herald*, and Resolutions passed by the Associated Industries of Massachusetts, show only in part his accomplishments and the estimation in which he was held by the community:

"Robert N. Turner, well known Boston attorney, and at one time commissioner of Labor for Massachusetts, died yesterday at his home, 130 Jason Street, Arlington. Death resulted from an attack of pneumonia which developed from a severe cold contracted about three weeks ago.

"Mr. Turner was one of the organizers as well as executive secretary of the Republican League of Massachusetts. He was born in Waltham thirty-eighth years ago, son of

Charlotte L. (Newton) and the late Nathaniel Wing Turner. He received his education at the Massachusetts Institute of Technology, Boston University and the Boston University Law School.

"He was a member of the Waltham board of aldermen in 1908 and 1909 and a member of the House of Representatives during 1910 and 1911. For two seasons he was legislative counsel for the Boston Chambers of Commerce and for the Massachusetts branch of the American Association for Labor Legislation. He was reputed to be the best informed man in the State on recent labor legislation. He was appointed Commissioner of Labor in November 1913 and resigned that position in April, 1914.

"Up to the time he began active work in the formation of the Republican League, Mr. Turner had been secretary and one of the organizers of the Associated Industries. He was elected a member of the Republican state committee last fall, was a member of the Arlington school committee and of Hiram lodge, A. F. and A. M., and treasurer of the Arlington Men's Club. He is survived by his widow, Mrs. Therese (Norton) Turner; three small children, Mary, Louise and Robert N. Jr., and an aged mother. He had lived in Arlington since his marriage."

At the March Meeting of the Executive Committee of the Associated Industries, the following resolutions on the death of Robert N. Turner, which occurred on February 25, were adopted by a rising vote:

"Whereas Robert N. Turner served the Associated Industries of Massachusetts during the period of its early development with singular devotion and effectiveness, so that its present position of power and usefulness is in no small measure the result of his labors, and

"Whereas by his death there is taken from Massachusetts a citizen who was given only to those things which are of good to the community,

"Therefore by the Executive Committee of the Associated Industries of Massachusetts  
**"BE IT RESOLVED,** That the members of this Committee profoundly regret the death of Mr. Turner, who had achieved greatly in good works and who promised to increase in useful citizenship; and

**"BE IT FURTHER RESOLVED,** That a copy of these resolutions be placed upon the records and a copy sent to Mrs. Robert N. Turner."

He will long be remembered for his effective work in connection with passage of the bill for State Aid to Technology the last time it was up before the legislature, and for his loyal help in connection with the '05 committee on the last Endowment Fund Drive.

Commander J. A. Furer, Course XIII A. Class 1905, has been on Admiral Rodman's Staff since July 1919, as the Fleet Constructor of the Pacific Fleet. The U.S.S. "New Mexico" is at the present time flagship of the Pacific Fleet. During the War Commander Furer was in charge of the Supply and Production Divisions of the Bureau of Construction and Repair, Navy Department, Washington, D. C.

"An addition to the list of citations won by Tech men is that of Capt. H. M. Edmunds, '05, who has been awarded the British Military Cross. Edmunds latest address is — Parliament Mansions, Victoria Street, Westminster S. W. 1, England."

Ed Coffin recently received the following letter from Bob Cutting, from Blanchetown, South Australia, in response to one written him last fall in connection with the Fund:

"Your letter arrived just before Christmas and it would have been a physical impossibility to reply by an earlier mail. As a matter of fact I have had a whole sheaf of letters from various alumni, including Coleman du Pont, President MacLaurin, etc., and on receiving the first one I immediately forwarded a money order to the New York office of the committee. Please claim it for '05. I also did some propaganda work among the Alumni over here, six all told, and received letters similar to my own from some of them.

Unfortunately, until I received your letter, no subscription card had been forwarded and so my mite was forwarded with a letter. I am sending the card along now and as you see I have stretched the amount of my subscription a bit. I hope the four million dollars was pledged and only wish that my part could have been more.

About myself, the address you got hold of is a bit vague I must admit. I am over here on contract with the South Australian Government, acting as constructing engineer for the River Murray Improvement work. I am building locks and dams in the only river of any size in Australia. This is a very dry country. Last year the total rainfall at Blanchetown was only 5.96 inches and the thermometer at times registers as high as 114 in the shade.

I hope to be back in Boston in about a year, and as I wander up Boylston Street I will be sorely tempted to have a smoke on Rogers Steps in memory of the bygone days when Getty, Charley Cross and Pebo did their best to start us right. I wish I knew all they tried to teach us."

Announcements were sent out in February of the reorganization of the firm of Watson, Coit, Morse & Grindle, counsellors in patent causes, 916 G Street, Washington, in which the "Morse" is our own Robert W.—John Damon was married on February 5 to Miss Frances Cushing Hall. Their home will be at 612 Worth Street, Pittsburg, Pa.

The Secretary has a habit of sending out a few postcards in spare moments to men who have recently changed their address, or who for some other reason he thinks might supply an item of news. In response to such a request, Charlie Mayer writes in as follows:

"Dear Classmates, M. I. T. 1905:—My home is in Indianapolis where I have been since the fall of 1907, located right at the center of population in the largest inland city of the world. Some day you will all desire to come to this important center; let me know in advance or call me upon your arrival and I will gladly introduce you to the wonders of this conspicuously remarkable city."

W. C. Pickersgill writes from the U. S. Shipping Board, Houston, Texas, as follows: "I do not see any '05 men down here. We launched the last two wooden ships to be built in this district last week. We are busy closing up the shipyards and disposing of plant. While our friends in Boston are struggling in the snow, we are enjoying real spring weather with plenty of pansies and other spring flowers."

Report has reached the secretary through Andy Fisher that Bobby Burns has just been made manager of the Chicago office of the American Dyewood Co.—All '05 men were greatly pleased to learn of the appointment of Doc Lewis as head of Course X of Chemical Engineering, which received considerable press notice at the time owing to the reputation Doc has made in the scientific world.

The following item from *The Tech* notes the appointment of F. J. Chesterman as Chief Engineer of the Bell Telephone Company of Pennsylvania.

"Francis J. Chesterman, '05, division plant superintendent of the central division of the New York Telephone Co., has become associated with the Bell Telephone Company of Pennsylvania in the capacity of chief engineer. Mr. Chesterman is a graduate of course VI and upon leaving school he entered the employ of the American Telephone and Telegraph Co. at Boston, engaging in transmission work under the direction of Dr. G. A. Campbell, '91, and in association with E. H. Colpitts, now assistant chief engineer of the Western Electric Co. Subsequently he was assigned to special investigation work at New York, Chicago, and other places. In June 1907 he was transferred to the engineering department of the New York Telephone Co., and on January 1 of the following year was appointed division plant engineer of the Manhattan Bronx and West Chester Division. In October 1912 he was appointed division superintendent of the central division, with headquarters at Syracuse, continuing in that capacity under his recent resignation."

Plans for our reunion are being held in abeyance until those for the General Technology Reunion are more or less crystallized. It is felt that we should have our fifteenth anniversary celebration off by ourselves somewhere the latter part of June, but that the detailed plans should wait until we can see how to best make it fit in with the big reunion, which it is understood, will be held during the latter part of June instead of at Commencement time, which past history has shown to be invariable cold and rainy. As soon as the plans are in shape, the irrepressible flivver will probably break out of the barn again.

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#### 1906

C. F. W. WETTERER, *Secretary*, 147 Milk Street, Boston, Mass.

J. W. KIDDER, *Assistant Secretary*, 50 Oliver Street, Boston, Mass.

Some years ago we received a letter from Stewart Coy in which he commented upon the absence of '06 notes from some of the issues of the REVIEW. The assistant secretary then made a resolution he would do his utmost to prevent the recurrence of such a condition. But when notes became due in the midst of the Fund Campaign the latter was given the preference, hence the absence of 1906 news in the January REVIEW.

Speaking of the Fund Campaign we would like to be able to write a young volume regarding it, but we will limit ourselves to a few of the important features which we know will be of interest to all of the Class.

The secretary was unable to give much time to the work as he was called away upon business during the first part of the campaign. After vainly endeavoring to find a Class chairman, the assistant secretary appointed a committee of Ralph Clarke, Carroll Farwell, Walter Hopkins, Roland Page, Ralph Patch and Ned Rowe to canvass the men in Boston and vicinity, while letters were sent out to twenty-five '06 men in various parts of the country asking them to act as regional representatives and obtain pledges from classmates in their districts.

Following is a list of the districts, the representatives, the number of '06 men in the district and the number and per cent of pledges received from each district: S. T. Carr, VI, Albany, seven in district, three pledges, 42.9 per cent subscribing; H. W. Beers, I, Atlanta, eight in district, one pledge, 12.5 per cent subscribing; E. D. McCain, I, Baltimore, six in district, one pledge, 16.7 per cent subscribing; P. T. Mann, IV, Buffalo, eleven in district, eight pledges, 72.7 per cent subscribing; C. M. Emerson, II, Chicago, twenty in district, nine pledges, 45.0 per cent subscribing; F. G. Baldwin, II, Cincinnati, six in district, three pledges, 50.0 per cent subscribing; F. E. Dixon, V, Cleveland, nineteen in district, thirteen pledges, 68.4 per cent subscribing; A. B. Sherman, VI, Fitchburg, four in district, one pledge, 25.0 per cent subscribing; H. C. Henrici, II, Kansas City, seven in district, two pledges, 28.6 per cent subscribing; E. L. Mayberry, IV, Los Angeles, thirteen in district, six pledges, 46.2 per cent subscribing; H. J. Ball, II, Lowell, nine in district, two pledges, 22.2 per cent subscribing; W. D. Davol, VI, Manchester, N. H., nine in district, three pledges, 33.3 per cent subscribing; E. B. Bartlett, VI, Milwaukee, six in district, one pledge, 16.7 per cent subscribing; T. L. Hinckley, XI, Minneapolis, four in district, three pledges, 75.0 per cent subscribing; E. M. Berliner, II, Montreal, nine in district, three pledges, 33.3 per cent subscribing; F. E. Earle, II, New Bedford, eight in district, four pledges, 50.0 per cent subscribing; P. B. Stanley, II, New Britain, twenty in district, eight pledges, 40.0 per cent subscribing; M. A. Coe, II, New Jersey, eight in district, three pledges, 37.5 per cent subscribing; W. F. Englis, XIII, New York, fifty-one in district, thirty pledges, 58.8 per cent subscribing; P. E. Tillson, VI, Philadelphia, twenty-seven in district, sixteen pledges, 59.3 per cent subscribing; W. H. Trask, II, Salt Lake City, twenty in district, twelve pledges, 60.0 per cent subscribing; C. T. Bartlett, I, San Antonio, twelve in district, five pledges, 41.7 per cent subscribing; F. S. Phelps, II, San Francisco, seven in district, three pledges, 42.9 per cent subscribing; H. K. Munroe, VI, Seattle, twelve in district, eight pledges, 66.6 per cent subscribing; Guy Hill, VIII, Washington, D. C., eighteen in district, four pledges, 22.2 per cent subscribing.

Total per cent for Class March 16, 1920, 43.5.

The way in which most of the above men responded to our first letter was very gratifying, while the statistics indicate the results obtained. In some cases the districts contained many who were at the Institute but a short time and who did not respond to the appeal, hence the district men should not be judged too severely by the above figures. Abe Sherman had but four names upon his list. He went after them hard and was one of the first to render a report. It read in part as follows: "Considering the names you gave me I think I did well to get as much as nothing."

If we were to award distinguished service medals to district representatives, we believe first choice should go to Bill Englis who covered the New York District. This was the largest district but it was handled so admirably from an '06 standpoint that thirty subscribers were obtained for a total of \$14,070.

Too much space would be required to mention all the district men who deserve it, but we must mention a few. Carl Emerson was asked to cover Chicago. His address showed him to be there, so he was elected by a unanimous vote. He was late in getting started, as he was out of the city when our first letters should have been received, but he surely made up for lost time. Harold Munroe in Tacoma acknowledged our request to serve with a letter stating he accepted the responsibility and was "already in action." He succeeded in obtaining eight pledges out of a possible twelve or rather eleven, as one man could not be located at the address given. Percy Tillson as usual did a good job with the Philadelphia district. As for Minneapolis, we sent T. L. Hinckley three names besides himself. Three pledges were obtained although it happened that T. L. was still in France with the American Expeditionary Forces. We suspect "Cy" Young's fine hand had much to do with this good showing, as we learned from the Alumni Dinner issue of the *Tech* that he headed the General Committee for Minnesota.

The Boston representatives all worked hard. Ned Rowe with his usual enthusiasm for M. I. T. was of great assistance, not only as a solicitor but also in attending committee meetings and advising regarding the general conduct of the Class campaign. Ralph Clarke distinguished himself as a money getter through the use of the telephone.

As the assistant secretary looks back upon the campaign, he feels a strong sense of gratitude to those of the Class who contributed. Reluctant to accept the work in connection with the campaign, it was extremely gratifying to have the members of the Class respond with their time and money as they did and the satisfaction of knowing that 1906 had one hundred and eighty subscribers for a total of \$36,131 upon the night of the annual banquet more than compensated for the time and effort expended. To date the Class has two hundred and three subscriptions amounting to a total of \$38,022.



The following letter was received the other day. Please note the first part. It would help the secretaries immensely if Davenport's example became more general:

"I've noticed that the news items in the REVIEW as far as concerns our Class are apt to be rather scarce, so possibly the following may be of interest. First: the arrival of a daughter, Grace Sewall Davenport, born December 10, 1919. Second: My work for the last thirteen years (with the exception of two in the middle of that time) has been with the Santa Fe Railroad, for the last five years as assistant engineer — specializing on water supply problems. Water in the deserts of eastern California and western Arizona is a scarce article and both as difficult to find and as precious, when located, as gold, so the work is very interesting. Third: I recently attended the funeral in Los Angeles of our classmate Angelo T. Heywood, with whom I was particularly well acquainted during the freshman year. Sincerely, George L. Davenport, Jr. (Course I.)"

1906 men are sorry to hear of the death of A. T. Heywood. He was born at Princeton, Mass., September 14, 1883 and prepared for Tech at the Cambridge, Mass. High School. At the Institute he took mining engineering and at one time was president of the Mining Engineering Society. Classmates will remember him as an earnest student with a penchant for asking questions in the classroom. He took an active interest in Class affairs in his undergraduate days. It is understood that Heywood was afflicted with a nervous breakdown a few years after graduation and, as far as known, he never recovered from the same.

It is with a feeling of personal sorrow that the assistant secretary records the death of another classmate, Fred H. Bentley, II. Bentley was born September 11, 1882 at Ashaway, R. I. He prepared for Tech at the New Britain High School. He was on the class tug-of-war team in his sophomore year and was a member of the Mechanical Engineering Society. The writer had the pleasure of several months association with Bentley while we were both working in Holyoke in 1908. At that time he was with the American Thread Company as a mechanical engineer. In the many leisure hours which we spent in each other's company, I found Bentley to be a quiet, unassuming man possessing initiative and courage and a sense of humor which made his company most agreeable. Bentley went to New York from Holyoke and worked with several different engineering companies. At the outbreak of the war he and his brother, W. P. Bentley, '04, were consulting engineers in Dallas, Texas, operating under the name of the Standard Engineering and Construction Company. Fred went into cantonment construction work at the beginning of the war and was stricken with influenza while at work at Camp Mills. He was sick but four days, his death occurring in October 1918. He is survived by a wife and three boys who reside in Dallas. Regretting such a long interval has elapsed between Bentley's death and the report of the same to the Class, it is felt that the news of his death will be a distinct shock to '06 men who were fortunate enough to count Fred Bentley as a friend and all of the Class will feel the loss of another member and will sympathize with Mrs. Bentley in her bereavement.

A card has been received announcing that Herbert S. Whiting has formed a new company known as the H. S. Whiting Co., Inc. of New York City to continue the lighting fixture business transferred to it by J. Livingston & Co., Inc. The new company will manufacture and distribute *Livingston Economy Light* (licensed under Duplexalite Corporation patents) and other commercial units, operating with practically the same organization as has heretofore constituted J. Livingston & Co.'s Commercial Fixture Department. We feel it unnecessary to wish the new company success for knowing "Herb" we feel its success is assured.

The following is copied from a Dallas, Texas paper of January 10, 1920:

"Charles Saville was unanimously chosen by the board of directors of the Chamber of Commerce to serve the organization as secretary, effective at once, at a special session yesterday morning. Mr. Saville will succeed G. S. Maxwell, who recently resigned to enter private business. Mr. Saville has been industrial director of the chamber, and during Mr. Maxwell's absence for six months in 1919 in connection with United States Railroad Administration work, he was acting secretary. Mr. Saville has had extensive experience in organization and administration work since his connection with the chamber began slightly more than a year ago. He supervised the organization of the Junior Chamber of Commerce and for several months was the official advisor of that body. He is secretary of the Metropolitan Development Association and manager of the Dallas Open Shop Association. He was also one of the leading figures in the organization of the Dallas Housing Company. Mr. Saville is a graduate of the Boston Technological Institute, taking the combined courses of engineering and public health service. He served as City Sanitary Officer during the administration of Mayor Henry D. Lindsley. He was exec-

utive secretary for Dallas County in the Fourth Liberty Loan campaign which went over the top by a big margin."

1906 was represented at the funeral services of Doctor Maclaurin by E. B. Rowe and J. W. Kidder.

#### 1907

BRYANT NICHOLS, *Secretary*, 2 Rowe Street, Auburndale, Mass.

HAROLD S. WONSON, *Assistant Secretary*, Care W. H. McElwain Company, Manchester, N. H.

A severe loss was suffered by Charlie Allen last December when his mother and his youngest son were instantly killed in an automobile accident. His other son was badly injured but has recovered. Every '07 man extends his real sympathy to Charlie.—J. M. Barker (Jim) left Boston on March 20 for an extended trip to South America on business for the First National Bank of Boston.—Walter Bigelow is now with Lockwood, Greene & Company, engineers, and is located at 27 Lewis Street, Hartford, Conn.—Charles R. Bragdon wrote the secretary on December 20, 1919, and informed him for the first time of the birth of his third daughter, Nancy Wayne, on November 8, 1917. Bragdon is chemist with the Ault & Wiborg Company, Cincinnati, Ohio, varnish manufacturers.—George H. Bryant, Robel & Bryant, Inc., 58 East Washington Street, Chicago, Ill.—Everett R. Cowen, chief engineer with L. W. Hancock, general contractor, 709 Louisville Building, Louisville, Ky.

The *Philadelphia North American* on December 15, 1919, printed the following: "Professor Allan R. Cullimore, dean of engineering at Delaware College, has resigned to become director of the Newark Technology College at Newark, N. J. His resignation will take effect at the beginning of the second term, February 1. From April 1918 until July of this year Dean Cullimore served as a major in the army in rehabilitation work. He is a graduate of Boston "Tech" and for four years previous to coming to Delaware in 1916, was dean of engineering at the Toledo, Ohio, University. Newark Technology College, where he goes as director, has between seven hundred and eight hundred engineering students enrolled."

Gardner S. (Tommy) Gould has bought a home and is located at 33 Rhodes Avenue, Edgewood, R. I.—Ralph G. Kann, Merchant and Traders Bank Building, Stockton, Calif., connected with a big irrigation project.—H. G. Pastoriza, Room 3024, 61 Broadway, New York City.—Willis Ranney, Riegos y Fuerza del Ebro, Camarasa, Provincia de Lerida, Spain.—Donald G. Robbins is back in Boston with office at 713 Old South Building. He is New England manager for The Alvey-Ferguson Company of Cincinnati, manufacturers of all kinds of conveying machinery and conveyors.—A son was born to Mr. and Mrs. E. H. Squire at Spencer, Mass., on January 8, 1920.—C. J. Traverman made a call on the secretary in Boston early in March. Carl is looking fine and is prosperous, being director and officer in several mining companies. He expects to be in the East a good deal during 1920 and mail addressed to 27 State Street, Room 91, Boston, Mass., will reach him.—Laurence Wetmore, 845 Lee Drive, East Akron, Ohio.

The Los Angeles Shipbuilding & Dry Dock Company has strengthened its organization by the addition of Commander James Reed, Construction Corps, United States Navy, to its executive staff.

Commander Reed has resigned from the naval service and accepted the position of Assistant General Manager.

Commander Reed is a member of the American Society of Mechanical Engineers, a graduate of the United States Naval Academy, Annapolis, Md., in the Class of 1902. After two and a half years in the Atlantic Fleet he was selected for the Naval Construction Corps and spent three years at the Massachusetts Institute of Technology, in the Government postgraduate course in Marine Engineering and Naval Construction, being graduated in 1907, with the degree of Master of Science.

From 1907 to 1910 he was Shop Superintendent, Philadelphia Navy Yard; 1910-1911, Inspector of Hull Materials with headquarters in Philadelphia; 1912-1913, on leave of absence while acting as Assistant Director of Public Works of the City of Philadelphia, in connection with the reorganization of the municipal departments during the administration of Mayor Rudolph Blankenburg; 1914-1920 New Work Superintendent, Hull Division, Mare Island Navy Yard in connection with tanker, destroyer, and battleship construction.

## 1908

RUDOLPH B. WEILER, *Secretary* Care The Sharples Separator Co., West Chester, Pa.

LESEUR T. COLLINS, *Assistant Secretary* Care Imbrie & Co., 13 Congress St., Boston.

We had the best turnout in years at the annual dinner, the following being present: A. W. Heath, G. M. Belcher, L. A. Loomis, George Pope, L. B. Ellis, H. B. Luther, A. M. Emerson, J. C. Brooks, L. Coffin, LeSeur T. Collins, S. C. Lyon, E. H. Newhall, P. A. Esten, W. H. Medlicott, A. L. Gardner, H. S. Chandler, H. A. Cole, Jr., S. F. Hatch, Carl H. Bangs, B. W. Cary, A. M. Cook, H. L. Carter.

The regular bi-monthly dinner was held February 10 at the City Club followed by a bowling match. The following were present: Howard Luther, L. B. Ellis, S. F. Hatch, H. L. Carter, A. W. Heath, A. M. Cook, H. T. Gerrish, S. C. Lyon, E. I. Wells, A. B. Appleton, A. Emerson.

Herbert S. Mabey was married February 2, 1920 at Lynn, Mass., to Miss Mary L. Sisk, Smith, '16.

Your secretary has a letter from George Schobinger dated Lima, but he does not say whether Ohio or Peru, but it must be Peru, as he says he is going South and will return to the United States in April or May.

Once more it becomes our sad duty to announce the death of a classmate — that of Harold Edwin True at Saranac Lake, New York, on December 10, 1919. He was born April 21, 1887 and prepared for the Institute at the Newburyport High School. At the Institute he took chemistry but did not complete the course. He spent some time in Cienfuego, Cuba, at Central Soledad as chemist for the Edwin F. Atkins Sugar Plantation but was obliged to return north on account of failing health. He then was employed at the Matheson Alkali Works at Providence, R. I., and was on leave of absence at Saranac when death overtook him. He was married November 15, 1910, to Miss Marion Pierce Safford, also of Newburyport, who survives him as does also a son, Arthur Moody True.

Lieutenant Chester C. Ford of the Aviation Service, United States Army, died on February 12 at Langley Field, Virginia.

Lieutenant Ford had been in the service of his country for more than two years and was held in the highest esteem in army circles, where he won the admiration of his commanding officers by his devotion to duty.

For many years he lived in South Boston, where he graduated from the local schools, and in 1908 he was graduated from the Institute of Technology. He later entered in business life as an architect and was employed both in Boston and Chicago. When the call for fliers came, he entered the air service and won promotion.

The body was brought from Langley Field under military escort and he was buried with military honors. He is survived by his wife, Marion L., his mother, Mary Ford, of 697 Sixth Street, South Boston, and one sister, Una, of the same address. On January 1 Lieutenant Ford was called home to attend the burial services of his father, Charles E. H. Ford, a Grand Army veteran and prominent resident of the peninsular district.

## 1909

CHARLES R. MAIN, *Secretary*, 201 Devonshire Street, Boston, Mass.

Cyrus Thurston Johnston, mechanical and electrical engineer, eldest son of Clarence H. Johnston, architect, died at his home in St. Paul, Wednesday, February 25, after a brief illness. Mr. Johnston was a graduate of the Massachusetts Institute of Technology, Class of '09, and at the time of his death had entire charge of the heating, plumbing and ventilating work in his father's office. His career was one of brilliant promise and his untimely passing is lamented by a host of friends.

## 1910

DUDLEY CLAPP, *Secretary*, Gorton-Pew Fisheries, Gloucester, Mass.

Ten's Tenth Reunion is due this June and we will make it a whole! A dinner was scheduled for February 5. but the big storm made it impossible to hold it on that date and the continued tie-up of traffic postponed the dinner again. It will be held in the near future, however, and plans made at that time for the get-together in June.

The drive for the Endowment Fund, besides its success financially, produced a crop of letters.

J. G. Tripp writes from San Francisco: "I am here in the contracting business. Did not get into the service nor any other trouble. Married — quite happily. Nearly broke, as is usual for most technical men. Am a member of the American Association of Engineers, which organization may do something for the poor down-trodden profession.

Fred W. Osborn, who is connected with Phillips & Clark Stove Company, Geneva, N. Y., writes:

"I intend to get to Boston for the next Mitten reunion and shall make my schedule early so as not to miss it. While in New York last winter I met Harold Parsons who was then active in the Professional Bureau of the United States Employment Service and, as I was stranded after being engaged in making gas masks at the Long Island plant, he landed me a temporary position at that office. I remained there for about six weeks and at that time Parsons had opened a new branch in Philadelphia, was getting enthusiastic over employment work and expected to be with it for some time. I have been with this firm since March and my work has been along general technical lines such as one meets in foundry work; a little of everything to do with the manufacture and installation of hot-air heating devices. Quite a new line for one who has been working in mining camps, but one which is congenial and has a promising future."

The following extracts are taken from a letter from Robert Breyer who is in Los Angeles:

"I must say I have been rather negligent as far as Class affairs are concerned ever since I left Tech. However, when you are confronted with the necessity of getting out and working like sin or stop eating, believe me, you work — at least I have, and I can not say that I am much richer than on that June day when I pulled out of Boston and left Rogers on Boylston Street, to become a vivid memory.

"I drifted out of engineering quite suddenly for pecuniary reasons, pure and simple, and am at the present time peddling 'The Standard of the World,' which, of course, is synonymous with 'Cadillac'— my present job being that of sales manager for Southern California. We have a great time getting rid of the stuff, but times have been very dull from a real selling standpoint, for months, since we have been taking nothing but orders and making few *real* sales."

Lasley Lee, at present in the United States Geological Survey at Tacoma, Wash. writes:

"No, I am not married yet. The H. C. L. has my goat. We are pretty busy on water-power reports and Rotary Club work take up most of my spare time."

H. E. Beebe, vice-president of the Bank of Ipswich, Edmunds County, South Dakota, writes:

"Received a letter from Ralph George at Bradford, Pa., saying he would see me in Buffalo in January and wanted to know the location of E. D. Greene. Any one knowing please write George or myself. I like to see the Tech men get ahead especially the VI-10's. It spurs me out of the rut. During the war I did not get more than one hundred miles from Ipswich — our bank had a great deal of Liberty Loan and other public work and our profits for 1918 were less than 1917. With the signing of the armistice and the floating of the Fifth Loan out of the way, the work was much lighter at home and I have spent a good deal of time since March 1 inspecting different parts of South and North Dakota in regard to the value of land and stability of loans made. All Tech men are hereby notified that Boston, Buffalo, Chicago, Minneapolis, Aberdeen, Ipswich and other large cities are on the Yellowstone Trail and next summer after July 1, will be a good time to drive through. A welcome M. I. T. is extended to one and all."

Schlitz writes that his present address is 815 Majestic Building, Milwaukee and that he is secretary of the Milwaukee Alumni Association. He boasts a family of three girls.— J. D. Baldwin is on a farm in Ca thage, South Dakota, recovering his health after a long sickness. Sneddon is now in Bayonne, New Jersey, having spent the last four years in Akron, Ohio.— V. T. H. Bien has a flourishing contracting business in Washington. He has a plan for getting up a history of Course XIII-10, which he outlines as follows:

"I am going to write a letter recounting my biography (if I may call it such) from the time I left the Institute to date, and send it to one of the members of my course and class with the request that he write a similar letter, attach it to mine and mail it to another member; the idea being that after a full circuit has been made, to have the bunch returned to me so that there may be a complete biographical sketch of each fellow in the class and course. It is my intention to copy and send a complete set to each member and one to the REVIEW."

Your secretary is pretty busy these days preparing for a big event to take place on April 15 — his marriage to Miss Elizabeth B. Neill of Buffalo, New York. However, he



is always glad to get letters from members of the class and will welcome all suggestions in regard to the big June re-union.

Notice has been received of the following deceased members of the Class of '10: Walter Spaans, January 22, 1919, S. Beruei Austrian, killed in action, October 2, 1918, Wallace D. Richardson, January 23, 1919.

#### 1911

ORVILLE B. DENISON, *Secretary*, 63 Sidney Street, Cambridge 39, Mass.

HERBERT FRYER, *Assistant Secretary*, Engineers Club, Boston 9, Mass.

Elsewhere in this issue of the REVIEW will be found an outline of the special reunion and conference planned for the latter part of June, 1920. Out of respect to the memory of our beloved Doctor Maclaurin, it was thought wise by the Alumni Council to omit the regular Alumni Reunion originally planned for this year and hold instead a form of memorial service to be followed by a full, frank discussion of the Institute's vital problems, special emphasis to be laid on Technology's relations with industry and the Nation. It was originally suggested by some of the Boston elevens that our tenth reunion, scheduled for 1921, be brought ahead to this year so as to produce a larger attendance. But with the chances not at all unfavorable to holding an old-fashioned Alumni reunion in 1921—the year to be determined by the choice of Doctor Maclaurin's successor!—it seems best to stick to our original plan of having our tenth reunion and the ten-year book "on time."

It is with deep regret that your secretary chronicles two verified and one unverified reports of deaths of classmates. The New York Times of February 9 contained the following: "Suddenly of pneumonia, on Friday, February 6, 1920, at Niagara Falls, N. Y., Mitchell, beloved son of Mr. and Mrs. I. Sherwood Coffin, in the thirty-first year of his age. Funeral from his late home, 30 Remsen Street, Brooklyn, on Tuesday afternoon, February 10, at two-thirty o'clock."

On the sixteenth of February the Boston Herald carried the following: "Vincent L. Ahern, thirty years old, died this morning from pneumonia. He performed his duties as a sanitary engineer last Tuesday. He was born in Lawrence. He made a special study of drawing and for a time taught in the Lawrence high school. He resigned to take a course of the Sheffield Scientific School of Yale University and was graduated in 1912 as a sanitary engineer. Since graduation he had worked in many parts of the United States."

"Alec" Yereane wrote in recently that he has heard that a classmate, Armand Pauvolid, I, was killed some time ago in a South American revolution. Can any one verify this report?

Nineteen eleven was well represented at the annual Alumni banquet at the Walker Memorial on the evening of January 10, twenty-six men being in attendance as follows: Aaron, Alter, Buckley, Burleigh, Cooley, Copeland, Coupal, Cumings, Denison, Haines, Hartshorn, Herlihy, W. B. Hopkins, Hugelman, Jenks, Killion, Leary, Momanus, Meisel, Pead, Pepper, Van Tassel, Whitcomb, Wilkes, W. C. Wilson, and F. A. Wood. Once again the secretary of "Elustrious E-leven" was cheer-and-song-leader and 1911 came in for a generous share of the applause when the fund records were thrown on the screen.

You will doubtless be interested to know that your secretary sent the following night-letter to Mrs. Richard C. Maclaurin on the evening of January 16: "Class of Nineteen eleven extends profoundest sympathy in your great bereavement. Dr. Maclaurin at once endeared himself to our hearts. Time added to esteem in which he was held by us. Technology has suffered irreparable loss, but greater loss by you and children. May we always be your friends? Orville B. Denison, Secretary."

At Mrs. Maclaurin's request no flowers were sent to the funeral, but a dozen roses were sent to her as a personal tribute.

Gutzie Barker is now out with Groucho Fryer at the Sturtevant Plant in Hyde Park (you see you can't keep 'em apart) and reports that "as I have to catch a seven A.M. train and get home after six P.M. I am now in social retirement as 'tw'er."—Royal M. Barton writes: "Saw Dr. Maclaurin in Philadelphia last December and noted his rundown condition, but was shocked to learn of his death. I heartily agree with the spirit of your telegram to Mrs. Maclaurin."

Suren Bogdasarian writes that he is now with the Penn Bridge Company at Beaver Falls, Pennsylvania, commuting from New Castle. He adds: "Nothing new to add—not even a wife. Here's the equation: H. C. L. + a wife = Trouble (for a beginner). Of course you old-timers (?) have solved the problem before H. C. L. entered into the equation, therefore you are able to cope with the new member."

Oberlin S. Clark writes that he hopes to return to Boston by April 1, and resume the contracting business he started a few years ago. He adds that he will start by building a summer cottage at South Weymouth.

"L-C" Cooley reports that he is still "wandering around," at present condensing milk and enjoying the Vermont cold and snow.—A mid-February note from Stu Copeland brought the sad news of the death of his wife, neé Madelene H. Draper, who passed away on January 23 after a short illness with pneumonia. Your secretary is sure he was voicing the sentiments of all his classmates when he wrote at once a note of sympathy. George Cumings wrote in late February that he was just recuperating from a couple of weeks of the flu.—Doc Davis with the handle of Lieutenant-Colonel writes that he is still in Washington in the Ammunition Division, office Chief of Ordnance. He says Pete Gaillard is also there, but other than the latter he has not seen an elevener "for a coon's age."—Jim Duffy, still with the Curtiss Aeroplane and Motor Corporation of Buffalo, recently wrote from Houston, Texas that in the future we had better address him care of the Curtiss Corporation at Garden City, Long Island. Seven-league boots, Jim, or do you get around in a plane?

Rudolph Emmel writes from Ecuador that he is in charge of all the mining for the South American Development Company there. They have one mine producing one hundred fifty tons of gold-silver ore per day, developing four other prospects and getting out seventy-five tons of slime per day from the old Aailings dam for the new mill. He likes it down there very much, especially the perpetual summer. "No danger of coal strikes here," he concludes.—Don Frazier writes from Richmond, Virginia, that he is sorry for those of us who are in Boston, for there is no snow in Virginia and the weather is fine.

Your secretary has had two fine letters recently from one Canadian classmate and one Japanese. Professor Augustin Frigon, head of the Department d'Electricité at Ecole Polytechnique, Montreal, writes: "You may have noticed that I have not given anything to Tech this time. I want to assure you that it is not because I have forgotten the very short year I spent in Boston and the friends I have there. I have felt ever since, and always will feel, the influence of the M. I. T. 'atmosphere' and I am mighty glad of it too. I wish I were 'Mr. Smith, Jr.' to prove it to you. There are three good reasons why I am not giving. First, love for study has landed me with the teaching category of professional men, which means that my salary consists mainly of compliments, promises and things of the kind. Second, I have had in my head for some years that I am going to spend another two years of special study. It will be in Paris this time and most probably next year. This means that I have to save all the cents I manage not to spend. Third, Laval University of Montreal, with which is affiliated Ecole Polytechnique, and which up to a few months ago was a branch of Laval of Quebec, has obtained its autonomy and will hereafter be known as 'University of Montreal.' What is more, our main building was gutted by fire a few weeks ago. It has been decided to rebuild the whole outfit on a new ground, a few million will be required and a campaign to that effect is underway. I should like to take a trip down to Cambridge some day to see how old M. I. T. looks now. I feel it would do me lots of good."

Kanezo Goto writes from the Navy Department in Tokio: "I was sent by Japanese Navy to study at Tech, and before and after me several Japanese boys studied there. For these Japanese Navy boys, Assistant Secretary of the Japanese Navy forward one thousand yens (about \$500) to Tech last December through the Japanese Naval Attache at Washington.

"I am going to America and will be in New York City on first part of March. This time I am Chief Inspector of Machinery and Ordnance for the Japanese Navy in America for two years."

In remitting for Class dues Mike Greenleaf chortled: "I only wish that all organizations placed as little financial strain on an individual as does this 1911 outfit." He said he ran into Bert Fryer in Detroit in early February "same old Herb." He concludes: "Just waiting now for the golf season to open. I expect some easy picking this year as our good friend Wal Dennett enters the lists this spring as a regular and, like all recent devotees, doubtless has some notions that need trimming. Anyway the rest of us old-timers do not propose to let him get away with anything."

F. C. Harrington had a tough break in his army career, as he is pretty well knocked out with what may develop into the dread tuberculosis. In sending his pledge for the Fund, however, he said that he had not lost hope, by any means, even though the "medicos figure I ought, according to the statistics, to be here perhaps through this year." He wrote from United States General Hospital 20, Prescott Barracks, but expected in mid-February to be transferred to Denver, Colorado, as the hospital at Prescott was to

pass from army control.—C. P. Kerr writes from “the old home town,” Catonsville, Maryland: “It has been so long since I have been in Boston that I should like mighty well to see the old place again. I have not yet seen the New Technology. I am working in Baltimore now.”—Ed Kruckemeyer in Cincinnati reports that he is “busy as a bumble-bee!”—Harry Lake is still in the oil-burning game here in the “Hub”—Herbert P. Larrabee writes that he was among those who helped shovel out Worcester, City of Prosperity “for some,” he adds. M. J. Lowenberg has joined forces with Stone & Webster in Boston and is with his course-mate, W. B. Hopkins.

Jack McAllen writes from Kennecott, Alaska under date of February 11: “I got out of the army on August 6 at Camp Lewis, Washington. After lying around for about a month I came up here to Kennecott to work for the Kennecott Copper Corporation. The job is nothing fancy but I expect that it will turn into something good in the course of time. This is a nice cool place to spend the winter. The buildings are built on a glacier and have to be pushed back up hill every summer on account of the movement of the glacier. A tunnel has been run into the glacier to get ice which is melted to make water. We are mining copper ore which is shipped to Tacoma to be smelted. This place has the reputation of being the highest grade copper mine in the world. The Kennecott people paid twenty-six million dollars dividends in 1916 when copper was so good. Not bad for a small place. Remember me to any of the 1911 bunch you run across.”

Doc Moore writes that business is fine, thank you, with A. P. Moore's Sons, Inc., Tyler, Texas, of which concern he is a director. —Chet Morey, one of 1911's hard workers in the Fund, had to forego the pleasure of attending the annual Alumni dinner on account of an operation for appendicitis just after New Year's. He came through finely.—Bob Morse says he has a new job with a firm of consulting engineers and that his address after May 1 will be care of Henry R. Kent Company, Rutherford, New Jersey.—Franklin Osborne in sending in his Fund pledge from Chile, South America, sent warmest regards to his classmates.—Poor Bill Pead! He was laid up for two weeks in February with the grippe and had to miss the Boston Athletic Association meet, something he has not had to miss for years.—Fat Perry sailed February 21 for Santiago, Chile, South America, where he is going to get the forge shop and heat-treating plant of the new locomotive works of the Chilean State Railways Company going and then his job will be finished there.—Through a book notice appearing in the New York Times last December, your secretary was able to locate a classmate who has been on the “No address at present,” list for many moons, or since his connection with the former Toy Theatre in Boston. Follows the b. n.:—“A Washington Pezet, who wrote the novel, ‘Aristoklia,’ which the Century Company published last summer, is the son of the first Ambassador to the United States, Frederico A. Pezet, who lately arrived in Washington. Young Pezet was educated in the United States, in the public schools of Washington, the Massachusetts Institute of Technology, and Harvard University where he specialized in dramatics. He is prevented by his father's diplomatic position from becoming an American citizen, as he would like to do, but in all other respects he considers himself a good American.”

Through the good offices of the Century Company our old friend was located at The Ark, Jaffrey, New Hampshire and he wrote that he had been there all winter working on another book. He was glad to be once again in touch with his Technology classmates, he said.—Hal Robinson writes from Worcester that he and Mrs. Robinson have another son, Richard Spaulding, born December 30, 1919. This makes two boys and a girl and he tells the secretary that he, the secretary, should “get a hustle on.”—In a short note accompanying his class dues, Ed Vose, always a wag, you know, sent best regards to the secretary's better three-quarters. He's right at that!

Bill Warner writes that his oil business is certainly oil right out in Nowata (gee, now with prohibition it must be worse than ever) Oklahoma. He says he has “almost,” located Swiftly Nash, of whom the secretary has heard nothing these many years.—Harry Waterfall writes in from Urbana, Illinois, that he is already looking forward to his return to Boston in June, when the college year ends.—Bill West writes in from Chi:—“What with a growing business and a ditto family (four kids) I don't have much time to keep posted on Tech doings in this vicinity but I do run into an occasional Tech man and get a little news. Congratulations on your success in putting 1911 across for the Endowment.”

W. O. Whitney says he is still in business with the Brunswick Refrigerating Company of New Brunswick, New Jersey, and is busy as can be, for he is now manager of the marine department. He adds: “Just at present we are finishing up Shipping Board contracts and gathering in about ninety per cent of all new business being placed.”—Alec Yereance writes from South Orange, New Jersey: “Johnny Scoville lives near me and I've been around to see him seven times and each time he has been out. Ira Abbott, M. I. T. '81, who lives in the apartment below Johnny says he knows Johnny lives there because his

card is in the box and every night about midnight he throws his shoes around." How come, Johnny?—E. M. Young writes from the Quaker City that he is "now on the construction of a power plant with Stone & Webster for Philadelphia Electric Company, which is very complicated but very fascinating."—R. E. Zimmerman writes from Pittsburg that "in these days of H. C. L. it's a pleasure to receive a bill for something which does not carry an inflation of two hundred or three hundred per cent." \*

R. W. Frost writes from Paris:

"I left Paris about the fifth of November and went to Italy spending six weeks there including a week at Nice. I had a wonderful trip and visited all the big Italian cities and spent two days at Pompei. I also climbed Mt. Vesuvius on horseback and even went down the crater taking some excellent pictures. I also visited Monte Carlo, the great gambling center of the world, as you probably know. When I came back from England I returned by aeroplane and flew from London to Paris, spending four and one-half hours in the air. It was a fine trip and I enjoyed every minute of it. So much for my wanderings on this side and I hope that the next one will be across the Atlantic for a visit or perhaps for all time as I rather long for a little of the old United States spirit once in a while.

"Perhaps you may not know it, but I was right-hand man to Prof. D. C. Jackson during part of his sojourn in France, especially the first three months. He has returned to Tech again. I also acted as interpreter for Professor Adams of Harvard last summer while he was in France on standardization work. So you see I served with Tech men during the war. Also the chief Engineer of my company is a Tech man, Class of 1886. Perhaps you know him, Mr. A. S. Garfield. He is also from the suburbs of Boston."

Mr. and Mrs. Edward P. Hall are receiving congratulations upon the birth of a son, David Josselyn Hall, who "came in" when March did.—J. P. Hart has just opened an office for himself in Los Angeles, known as the Engineering Drafting Company. Hart certainly has the sympathy of his classmates in the loss of his wife, who died February 16, from pneumonia following influenza. He plans now to maintain a home in Los Angeles for his two little boys and himself.—Frank Smith writes that he has at last "got it on the landlords," for he has built a home of his own now in Waterbury, Conn., where he is with the American Brass Company.—Frank Wood has been elected president of the Arlington Heights (Mass.) Tennis Club for the current season.—Now for some changes of address to close:

#### CHANGES OF ADDRESS.

Walter D. Allen, P. O. Box 483, Port Jefferson, N. Y.; Robert E. Anderson, Tulsa, Oklahoma; D. C. Bakewell, Sewickley, Pa.; E. H. Blade, 61 West 71st Street, New York City; Walter F. Connolly, 153 Hemenway Street, Suite 16, Boston 17, Mass.; Norman DeForest, 117 East 84th Street, New York City; Clarence W. Dow, 1001 Commonwealth Avenue, Boston 34, Mass.; James F. Duffy, Curtiss Aeroplane and Motor Corporation Garden City, L. I., N. Y.; Carleton W. Eaton, Beaver Board Company, Buffalo, N. Y.; J. C. Fuller, 197 Green Street, Woodbridge, N. J.; Kanezo Goto, Japanese Naval Inspector's Office, 1 Metropolitan Building, New York City; Cuthbert T. Greenleaf, 55 Mt. Pleasant Street, Woburn, Mass.; Kenneth Greenleaf, 518 Book Building, Detroit, Mich.; John P. Hart, 722 Title Insurance Building, Los Angeles, Calif.; William E. Humphreville, Jr., Box 1016, Houston, Texas; John R. Hugelman, 13 Concord Way, Portsmouth, N. H.; M. J. Lowenburg, 147 Milk Street, Boston 9, Mass.; L. R. McMillan, 536 Baronne Street, New Orleans, La.; Charles Bolton Magrath, Works Manager, Railway Mine Supply Co., Kincaid, Ill.; Robert H. Morse, in care of Henry R. Kent Co., Rutherford, N. J.; Lester W. Perrin, 100 East 81st Street, New York City; C. R. Perry, in care of The International Machine Co., Santiago, Chile, S. A.; A. Washington Pezet, 49 Verndale Street, Brookline 46, Mass.; Frank F. Rupert, Mellon Institute, Pittsburgh, Pa.; H. F. Shaw, 44 Hall Street, Leominster, Mass.; Harrison A. Smith, in care of Hardwood Products Co., Neenah, Wisc.; F. G. Smith, 73 Woodside Avenue, Waterbury, Conn.; C. B. Smythe, 24 Colonial Apartments, Elyria, Ohio; Harold G. Soule, 17 Burton Terrace, South Weymouth, Mass.; Lester A. Stover, 4924 Chicago Avenue, Minneapolis, Minn.; To Tan Sun, Metallurgical Engineer, Government Lungyear Mining Administration, Pekin, China; Maurice R. Thompson, 309 Dolphin Street, Apartment G-2, Baltimore, Md.; Robert S. Thurston, Experiment Station H. S. P. A., Honolulu, T. H., Hawaii; Davis Henry Tuck, 340 Madison Avenue, in care of Holophane Electric Company, New York City; Russell D. Wells, in care of The Floyd-Wells Company, Rogersford, Penn.; Erving M. Young, 1421 Arch Street, Room 520, Philadelphia, Pa.; R. E. Zimmerman, 210 Semple Street, Oakland, Pittsburg, Pennsylvania.



1912

RANDALL CREMER, *Secretary*, 7 The Circle, Rochelle Park, New Rochelle, N. Y.

F. J. SHEPARD, JR., *Assistant Secretary*, 568 East First Street, South Boston, Mass.

Every 1912 man can be proud of the showing made by his Class in the Alumni Endowment Fund drive. The chief credit for this showing is due to C. E. Morrow, IV, for his active and untiring work as chairman of the Class committee. Credit is also due the local chairmen appointed at various centers who were active in the follow-up work. The fact that 1912 leads 1910, 1911, and 1913, shows that there is still some kick left in the crowd and our next chance is to produce more lead at the Alumni reunion in June.

Before going further I am going to appeal for some news for the next issue of the REVIEW. Sit down and give an account of yourself right now and we will see that it is put in, if fit to print.

Vincent W. Allen, II, writes from Torrington, Connecticut, where he is located with the American Brass Co., that business is very busy there, although he does not state the nature of said business. His home address is 74 Holly Place, Torrington.—J. H. Cather, IV, is with the Eastman Kodak Company, Rochester, N. Y. He is at present engaged in the installation of new power plant equipment. Anybody getting into Rochester will find him at the University Club.—Arch Eicher, XI, is with J. E. A. Moore, civil and mechanical engineer, Cleveland, Ohio.

Page E. Golsan, VI, left the Great Western Power Company, San Francisco, and started out as Page E. Golsan, consulting engineer. Reach him at 14 Sansome Street, San Francisco. Here is good luck to him.—Clarence McDonough, I, is still with the Foundation Company at their Philadelphia district office. The writer enjoyed dinner with McDonough and Rudolph Fox too in Pittsburg while in the service.—D. A. Tomlinson, I, is now at 910 Michigan Avenue, Evanston, Ill. Tomlinson did some good work for the Class as local chairman of the Alumni Fund drive.

Max C. Mason is with Stone & Webster located at their New York office at 120 Broadway, New York City.—F. L. Mowry, XI, sends regards to all the fellows from 816 East Marquette Road, Chicago, Illinois. He is now in the construction department of Swift & Company at the Union Stock Yards, Chicago.

Jimmie Morley, III, was last heard from in Hanley Falls, Minn., where he says that the picking is very poor. Hope business is looking up when we next hear from him.—F. J. Osborne has left the Orange Health Department, at Orange, N. J., as special agent, and is now executive secretary of the American Society for the Control of Cancer at 125 West 46th Street, New York City.—O. D. Powell, I, after finishing up two years' service in the army is back with Dunn & McCarthy, shoemakers at Auburn, N. Y.

Henry Partridge, II, is with the Firestone Tire and Rubber Co. with headquarters at Akron. His work takes him out of the city most of the time, making it hard to catch him at home as I can testify.—George W. Richards, I, was last heard from as being with the erecting department of the American Bridge Co. with headquarters in the Frick Building, Pittsburgh, Penn.—Merle Randall is listed as one of the faculty in the University of California, Berkeley, Cal., having followed teaching since leaving the Institute.

Dick Scanlon is located at 233 Broadway, New York City with the Newport News Shipbuilding and Dry Dock Co.—Walter C. Slade is now with the Rhode Island Company in the power and line department, located at Providence, R. I.—Alvin G. Thompson, II, is now with the Pennsylvania Eastern Lines located at Altoona, Pa., after two years' service in the army.—Harold C. Watkins, I, after getting back from France where he served with the 14th Railroad Engineers is back with the Boston & Maine located at the Union Station, Fitchburg, Mass.

C. H. Breen, I, has been confined to the house for over two years now through illness. His address is Ware, Mass. Turn to and write him, for he would surely be glad to hear from any of the old crowd.—Kenneth Cartwright, II, was last heard from aboard the U. S. S. Al-1. Hampton Roads, Va., as lieutenant in the United States Navy.—C. A. Dyer, XI, is now located at Middletown, Ohio, Box 109.—Johnnie Glaze, VI, is now with the Norton Company at their Niagara Falls plant.—Arthur G. Hildreth is assigned as the assistant professor of physics at the University of Maine. He can certainly testify that we have had a long hard winter.

The Boston *Evening Transcript*, March 6, announced the engagement of Miss Katherine Dorr to Ralph H. Doane, IV. Mr. Doane is a practicing architect in this city with offices at 73 Newbury Street. In addition, he is a special instructor in architectural design at M. I. T. Mayor Peters recently has appointed him a schoolhouse commissioner.

It is with regret that we note the death of Mitchel Coffin. The following notice appeared in the Brooklyn *Eagle*, February 8: "Mitchell Coffin, thirty-one years old, son of Mr. and Mrs. J. S. Coffin of 30 Remsen Street, died Friday at Niagara Falls, N. Y., where he had been in business. Death was due to pneumonia. Mr. Coffin was born in Brooklyn and gained his early education here. He later went to the Massachusetts Institute of Technology and was graduated with honors in 1912. He is survived by his parents, two brothers and a sister. The interment was in the Friends' Cemetery, Westbury, L. I."

The secretary has returned from Brazil and sent in the following interesting account of his trip:

"I left New York on November 23 for a four-months stay in Brazil to investigate the question of a coaling station for the Berwind White Coal Mining Company. The trip took twenty-four days—slow boat of course—but few people realize before actually traveling the distance that it is more than twice as far as England.

"It is a great sight entering Rio Janeiro harbor, supposedly the most beautiful in the world. It is large enough to hold half the tonnage of the world and quite deep, but the attractive part is the islands and the surrounding hills. The entrance is guarded by two great rocks over thirteen hundred feet high, that on the western side, the well known Sugar Loaf, rising sheer out of the ocean for the full height. In back of the city stand the jagged points of Corcovado and Tijuca, while at the head of the bay is a long semicircle of peaks remarkable for their sharp profiles, particularly the 'Finger of God,' which is a tremendous shaft of bare granite shaped very much like a forefinger and considerably more than a mile in height.

"The city of Rio Janeiro disfigures rather than enhances the natural beauty of the place, suggesting more than anything else an overgrown banana republic. But the view from Corcovado (the Hunchback), or the Sugar Loaf, is superb, looking down on the enormous spread of red-tile roofs with the beautiful bay studded with islands and the jagged mountains in the distance. The city itself is a mass of very steep hills with only a narrow fringe of level ground along the bay drive and made land in back of the docks.

"Taken as a whole Brazil is a wonderfully rich country. Few of us realize that it is considerably larger than the United States, and that, while the greater part lies within the tropics, from Rio south to the Argentine border is a stretch of one thousand miles of the richest land, all lying within the temperate zone. Present indications are that inside of twenty years this will be the greatest cattle country in the world. At present it supplies the world's coffee. Some of it passes under the name of 'Mocha and Java' and other pseudonyms, but it is an insignificant amount that is not shipped from either Santos or Rio. The growers resent the way we give the name 'Brazilian coffee' to only the poorest grades when in reality ninety-five per cent of all our coffee comes from Brazil.

"Some day we will get a great deal of our lumber from Brazil. Practically every variety of tree in the world grows there, particularly the hard woods. The difficulty now is in getting the logs down to the coast.

"Adjoining Rio Janeiro toward the interior is the state of Minas Geraes, literally 'Assorted Mines.' Here are actually mines of all sorts, coal, iron, silver, copper, gold and diamonds. There are mountains of high-grade iron ore, but the coal is not good for smelting. In some of the states in the south occurs a good coking coal. As a side light on this situation, simple articles of iron like nails and pipe, mostly imported from America, sell at from thirty to fifty cents a pound, and are often hard to get even at these prices.

"The chief difficulty in the way of the speedy development of these resources is the transportation problem, which is probably the worst that Brazil will ever have to solve. Without this handicap her wealth would be beyond imagining. It must be a nightmare to locate railroads in this country, the topography is all up and down—all hills and no valleys. Grades run up as high as twenty per cent. Of course this means a rack, but there are several stretches of ten per cent grade without rack. On the Leopoldina Railway, a British-owned line, the only means of communication from Rio north, the curves are so sharp that nothing longer than twenty feet can be shipped. They are not partial to any one gauge, ranging from one meter up to five foot three. Not a very simple matter to route over several lines, but fortunately for the traffic man the rates are prohibitive for anything more than a very short run. The standard charge for the longer runs is a little over three cents a ton-mile, about five times what we grumble at in the United States.

"We hear a great deal nowadays about the commercial field now open to Americans in South America—people at our very door etc., etc. This last is only poetic license when applied to Brazil. Rio is more than halfway across the Atlantic from our seaboard, and some hundreds of miles nearer Liverpool than New York. Of course the present high ocean freights cannot last very much longer. Right now the freight is often the big item in determining cost. The price of coal in Rio for bunkering ships is an interesting study.

On account of the war and subsequent embargoes at different times, coal is a rather scarce article in Brazil and there are no laws against profiteering. It is a case of charging all that the traffic will possibly bear. Here is roughly the way the selling price is made up: Cost at seaboard, United States of America, six dollars per ton; freight and insurance, twenty-two dollars per ton; duty, four dollars per ton; total cost, thirty-two dollars per ton. To this is added from three dollars to twenty-eight dollars a ton profit depending on the market, making the price delivered in barge lots from thirty-five dollars as high as sixty dollars a ton.

"The Brazilians themselves are very well disposed toward Americans. Brazil was colonized by Portugal, so Portuguese is the national tongue, enough different from Spanish to make it confusing. They are not friendly with Argentina, and possibly as a result of this feeling do not like to talk in Spanish, although they understand it. Labor is quite cheap—unskilled at one dollar a day, mechanics up to two fifty a day, and the quality compares favorably with our own spoiled and pampered article as known of late years. Most of the construction work done has been in connection with the big hydro-electric plants, which supply practically all of the power used, and the dock work in the various ports performed by the Government. Substantial English design has been followed in all cases, and very substantial prices have been paid to English contractors for same. Plans have just been completed for a big extension to the docks at Rio, to cost over seventy million dollars. The work will include three tremendous piers, six hundred feet wide by a mile and a half long, all granite and concrete. They make our best New York docks look like little boardwalks.

"As in most Latin-American countries the people seem to be strong for government control of industries and resources. So the federal government of Brazil owns and operates most of the railroads of the country, all docks, canals, roads and some steamship lines. There is always a danger of government interference in any big business through levying special taxes or requiring additional concessions. This is a constant detriment to the promotion of business in a new field. And there is always the need of standing in with the politicians in power at the moment. The present president, Senhor Pessoa, has improved the situation greatly by appointing capable men of his own choosing to fill positions of trust, but it is common gossip that this fact precludes any possibility of his re-election.

"So while the country as a whole offers a most promising field for development, it is by no means plain sailing. Like a good many other things, the glowing accounts of golden opportunities to be found in Brazil should be accepted rather cautiously—at least for the present."

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1913

F. D. MURDOCK, *Secretary*, 438 Huntington Avenue, Buffalo, N. Y.

ARTHUR W. KENNY, *Assistant Secretary*, 1214 West Tenth Street, Wilmington, Del.

Never since we graduated has so little news of our classmates found its way to the secretary's desk as during the past three months. It is perhaps an encouraging sign. The necessity for unremitting work is greater even than during the war. We are reaching an age and positions in the various businesses in which we are employed where real responsibility is being placed upon us, so undoubtedly it is too early to record achievement. If the foregoing is true and we are working hard it would be an excellent thing if we took a few days off next June. All those classmates whom the secretary has talked with have been to a man in favor of holding some sort of a reunion this June. There are a number of men around Boston to form a nucleus and it is certain that some sort of get-together even if for only one whole day would be very successful. We shall send the annual letter out in quest for news a little earlier than usual and at that time we shall have some definite plans for the get-together in June.

At the head of our small marriage column stands the name of Mr. George Edward Leavitt, Jr. who on Thursday, January 1, 1920 was married to Miss Katharyn Whitney of Leominster, Mass. Gordon G. Howie, I, became the father on January 14, 1920 of a son, Malcolm Patten.

To save our meagre notes from absolute disgrace come a short letter from Dick Cross, VI, who is located in sunny Spain. He says, "Presumably this is an appropriate time to give you a few facts about my recent history. Last June I came over here to take charge in Spain and Portugal of the interests of the Aluminum Company of America and have been in the peninsula ever since. It is very interesting. I enjoy the life, and

when the country quiets down a little and the situation in Barcelona stabilizes, I think that the development industrially will be well worth the attention of many more American industries than are here now. There is a great deal of water power development under way and, as in every other part of Europe, the shortage of coal is stimulating this movement. I have seen no Tech men here except a Spaniard who studied at the Institute under Professor Goodwin, though there may be some in Barcelona."

The secretary talked with Joe Strachan, I, in New York. Joe seems very happy with his opportunities at the General Chemical Co. He is doing factory executive work at their Edgewater, New Jersey plant. On his way from Florida to Detroit, where he will help indirectly to build more and better Fords, Gene McDonald, I, stopped off at Buffalo, in company with Mrs. McDonald. Gene cleared up the highway situation down in Florida and is now helping Henry Ford solve some of his problems. On the first of March Ralph Rankin, VI, said goodbye to the telephone business in New York and came to Buffalo to take up work in the rubber department of the Buffalo Weaving and Belting Company. Bob Nichols, I, is in the retail coal business in Binghamton, N. Y.

Not many of our fellows have gone into railroad work. Bob Weeks, VI, is an exception. He is an inspector in the stores department of the Pennsylvania Railroad. Superintendent of the Mossberg Pressed Steel Corporation of Attleboro, Mass., is Harry Peck's, II, new title. Hap ought to make a rattling good factory superintendent. From his card notifying of change in address we presume that Al Ranney, I, is back on the job devoting his time to his contracting business in San Antonio, Texas. George A. Taylor is with the Anderson Motor Car Co. at Rock Hill, S. C. Another man in the south is "Rusty" Sage, I, who has charge of the Atlanta office of the Aberthaw Construction Co. A. J. Pastene, X, is works manager with the Chemical Company of American, Inc. O. C. Walton is in the employ of the Midwest Engine Company of Indianapolis, Ind.

Charles H. Albee, general superintendent of Rockland & Rockport Lime Corporation, died February 24 of acute right's disease following pneumonia. The deceased was aged thirty-one and formerly resided in East Boston. After his graduation from Massachusetts Institute of Technology in 1913, Course X, he was engaged as chemist of the lime company and was rapidly promoted. The deceased was a son of Mr. and Mrs. Charles I. Albee of East Boston.

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#### 1914

H. B. RICHMOND, *Secretary*, 12 George Street, Medford, Mass.

G. K. PERLEY, *Assistant Secretary*, Hill Side Terrace, Belmont, Mass.

When the notes of the last issue of the REVIEW were compiled the Endowment Fund campaign was in full swing. Its success was not then known. Now that it is over we can look back on our record. 1914 ended up a lot better than it started, and while our record is far from the highest there are other classes well below us. Up to March 5, two hundred and twenty-eight Fourteeners had contributed a total of \$27,646, or an average of \$121 per man. This is a good amount. Our weakest point is that only forty-nine per cent of the Class subscribed. When the final Alumni list of contributors is published we feel sure that there will be great regret among the members of the Class to find so many prominent names missing. It is not yet too late to subscribe and it is to be hoped that some of our tardy members will find it convenient to help their alma mater.

On January 10 the jubilee dinner was held at Walker Memorial to celebrate the raising of the \$8,000,000. At this great victory dinner Fourteen was much in evidence. We had thirty-two members present and celebrated the fact by leading the Class cheering with a lusty Fourteen yell. Several of those present made pilgrimages from neighboring states to attend the dinner. The list of Fourteeners attending is as follows: Eberhard, Walsh, C. H. Wilkins, Blakeley, Atwood, K. C. Mason, Stubbs, Judge, Bowler, Ahern, Harper, Whitten, S. A. Smith, Chase, des Granges, Dorrance, Fiske, Dawson, Bowman, Crocker, H. S. Wilkins, C. P. Davis, Ricker, Adams, Waitt, Dickson, Corney, MacKenzie, Hull, Henricksen, Perley, Richmond.

Less than a week from this day of celebration came the sad news of the death of our beloved president Doctor Maclaurin. Our joys were indeed turned to sorrow. When 1914 entered the Institute Doctor Maclaurin had just started on his great work. We had listened to his plan, had seen the choosing of the new site, witnessed the dedication of the new buildings, and had celebrated the raising of the Endowment Fund. We had come to think of the Institute in terms of Doctor Maclaurin. In common with every other class



1914 mourns the loss of its greatest friend. To Mrs. Maclaurin is extended the individual sympathy of every member of our Class. The secretary and five other members of 1914 officially represented the Class at the funeral services. Carnations were sent by the Class as a small tribute and expression of its great sorrow.

Before the United States entered the war it was reported that W. T. Schaurte, II, had been killed in action while serving with the German Army. If Mark Twain were alive he would repeat his statement that the report of Schaurte's death was greatly exaggerated, because now that the war is over we find him very much alive. In fact Schaurte is general manager of the Rheinische Schrauben and Musternfabrick at Neus a Rhien, Germany.

Several changes in the family status of our number have been reported in the past few weeks. R. J. Newsome, I, was married on October 11 to Miss Katherine Keene. C. E. Woodlock, on July 7 to Miss Mabele Jerome Ryan. H. G. Deal, IV, on August 20 to Miss Grace M. Ball. Congratulations all around!

We feel that A. E. Hanson, VI, is the one who has been keeping something back from us. We recently received an announcement from him relative to the formation of The Gage Engineering Services Co. at Washington, D. C. Hanson is one of the members of the firm. At a recent address in Boston the chief physicist of the Bureau of Standards paid high tribute to the valuable work done by the Gage Section of the Bureau during the war. During this period Hanson was assistant chief of the section and part of the time acting chief. But business announcements are not the only ones that Hanson is sending out because another brings the information that he was married on December 30 to Miss Rebecca Evangeline Nelson. Hanson also gives promise of becoming a great financier. Being married on December 30, instead of two days later saved him forty dollars on his income tax. He then finishes up with this statement "Is the Class of 1914 endowed? I have not heard of dues for a long, long time." Thanks, OM, thanks. Spring greetings are now in preparation, better start saving your pennies.

The Boston *Transcript* of January 27 contained the announcement of the engagement of Miss Via May Carter to F. H. Leslie, II. It is understood that the marriage will take place this spring. Doc is with the Thomson Electric Welding Co. at Buffalo, N. Y.

Another engagement to be announced is that of Miss Ruth Jackson to P. A. Russell, I. Phil is with the sales department of the Aberthaw Construction Co. at Boston.

How is this! C. R. MacKinnon, I, who is with the Hunkins Shoe Co. at Haverhill, Mass., announces the fact that he became the proud father of a son on July 26 last and that a little over a year previous of twin girls. As far as we know MacKinnon is the father of the first class twins. He is not, however, the only member of our Class who is the father of twins. E. B. Peck, V, has a twin son and daughter born on the twelfth of last August. Now that we have a good start who will be the one to claim the first triplet?

Just before going to press we received word that Roger Williams, Jr. was born on February 19. Roger, senior, is with the duPont interest at Wilmington, Del. E. W. Larkin, I, who is with the F. T. Ley & Co. at Springfield, Mass., announces that he too is a proud father. Edward W., Jr. was born on September 2. Larkin also has a two-year-old daughter.

Kirk McFarlin, I, sends the announcement that he had gone into the import and export business. He has been made a vice-president of Hensey & Co. with offices in the Whitehall Building in New York City. F. B. Barns, VI, is doing engineering work for Hill & Ferguson in New York City. Barns has already celebrated the second anniversary of his marriage. H. G. Stewart, VII, has been appointed resident pediatrician at Johns Hopkins University, from which place he received a degree of M.D. in 1918.

J. M. White, VI, is a member of the firm of Charles E. Richardson & Co., consulting engineers, New York City. Jimmie reports that he is still single but that he is unwilling to make any promises about the future. Remember what year this is and beat her to it, Jimmie. We understand that many Fourteeners have dug themselves in for the current year, but we would hate to trust any of them.

H. W. Treat, II, has located in Buffalo, N. Y. with the Pierce Arrow Motor Car Co. Red reports that he is still single and does not even suggest future prospects. H. R. Aldrich, III, is geologist and petrographer for the Wisconsin Geological and Natural History Survey at Madison, Wisconsin. Say, Aldrich, if you find any 1914 men out there hiding their gold just let me have their location number and their name will presently appear on the Endowment Fund list.

F. I. Ahern, I, has forsaken the engineers and is in the investment banking business with Coburn, Kittredge & Co. at Boston. Between Waitt and Ahern no 1914 man should be in doubt of where to place his earnings. Waitt complains that so far he has not been

able to find any 1914 men with spare earnings. He said that if there are any, the Class secretary gets them for the Endowment Fund.

G. A. Wagner, IV, is in business for himself as an electrical contractor at Stafford Springs, Conn. Honus has two husky sons whom he assures us are to be loyal sons of M. I. T.

W. S. Hughes, V, is doing research work at the Harvard Medical School under the direction of Dr. Bovie. The treatment of cancer by radioactive substances is his specialty. One day last winter Hughes built a fire under his auto to warm it up, and to prove that he had a guardian angel near the auto warmed up and started without even calling the fire department.

Among the members of our Class who are fast acquiring fame is L. F. Hamilton, V. He is not satisfied with being the first 1914 man to be elected an assistant professor at Massachusetts Institute of Technology, but in addition he has been unanimously elected as secretary of the Northeastern Section of the American Chemical Society. This society comprises over eight hundred chemists in New England. More power to you Red.

R. H. Tuttle, II, has left Boston and established a business of his own at Minneapolis. A recent mail brought the following announcement from him: "Robert Hale Tuttle, industrial engineer, and Ethan Allen Whitney, public accountant, (C. P. A. of Colorado and Massachusetts), for several years on the Boston staff of Scovell, Wellington & Company, announce the formation of a partnership under the name of Tuttle, Whitney & Company for the practice of public accounting and industrial engineering." Good luck to you Tuttle. We might let you partner investigate some of the 1914 unpaid class dues.

S. H. Harper, IV, has filed a claim as father of the 1914 class baby and a second claim as being the only 1914 father of four future sons of Technology. The evidence in the case is as follows: "David H. Harper born June 13, 1911; Stirling H. Harper, Jr., born December 16, 1912; Eugene D. Harper born February 23, 1916; Richard C. Harper born July 27, 1919." It is moved that the medal, consisting of the congratulations of the Class, be awarded to Harper without delay.

Walter C. Eberhard, I, is still at the Institute as Instructor in Drawing and Descriptive Geometry. Walt is one of those who has recently joined the benedicts' class. He was married on September 25 to Miss Margaret Schubarth.—R. P. Dinsmore, X, beat Eberhard by one day. Din was married on September 24 to Miss V. R. Cowie. He is chief chemist for the Goodyear Tire and Rubber Co. of California at Los Angeles, Calif.

Another benedict of last fall is R. H. Annin, I, who was married on October 18 to Miss A. Ethel Chisholm. He is chief designing engineer for the Aberthaw Construction Co. at Boston.—A. W. Mudge, V, has been keeping rather quiet but we note that he has already been married a year. Art is with the Antoine Chiris Co. in New York City.—DeVere Dierks is secretary and treasurer of the Dierks Lumber and Coal Co. in Kansas City. We understand that Dierks has been doing a very prosperous business.—E. R. Goodwin, Jr., II, is manager of the Albany office of the Aluminum Company of America.

The Course VI men will be interested to learn that two of its famous number have at last settled down and under the new constitutional requirements and are thriving business men. C. L. Muzzey, VI, is married and living in Lexington, Mass. He spends his days at the Boston office of the General Electric Company, while at evening he hastens home to admire Clifford L. Jr., who is already nearly a year old. Son does not have all of his father's good looks.—H. D. Shaw, VI, turns up with a manufacturing business at Haworth, N. J. We have no record as to what H. D. is making, but we can imagine that his sales bulletins make good reading. H. D. was married on April 7, 1917 just three days after Muzzey. Muzzey is still in the lead.—M. C. Mackenzie, II, famous in the drawing room days, has left M. I. T. and has been in business for himself at Derry Village, N. H., but has recently given up this business to go with the American Optical Company at Southbridge, Mass. Every Fourteeners, and a lot of other 'eeners too, wish you the best of luck, Mac.—Phil Covitz, V, announces that he is the proud father of a son born on January 25. Phil is assistant chemist at the Brooklyn Navy Yard.—Word has been received from A. R. Miller, II, who is with the Atlantic Corporation, at Portsmouth, N. H. that the great event in his life is coming off on April 19. The lucky young lady is Miss Eugenie Trembley. Congratulations, Al.

$$\begin{aligned} 18-18 &= 15-15 \\ 6(3-3) &= 5(3-3) \\ 6 &= 5 \end{aligned}$$

Which all goes to prove that although on next June we will have been Alumni for six years we are going to hold a five-year reunion. Last year a reunion was held, to

celebrate the fifth anniversary of our graduation, but as many of our members were still in the service and as our former secretary was unable to attend the reunion, we did not have the attendance or enthusiasm which such an event warrants. This year there is to be an All Technology Reunion. 1914 is going to take advantage of the occasion and make it a rousing five-year reunion as well. Remember all you benedicts that this reunion is for the whole family. Last year six members of our 'Woman's Auxiliary,' attended. This year we expect sixty. G. K. Perley was the only one last year to bring around a young hopeful. As a reward he is hereby appointed a permanent committee of one to provide ways and means for the care of young hopefuls at future reunions.—The details of the plans for this All Technology Reunion are given elsewhere in this issue of the REVIEW. Mark the dates on your calendar now. Tell the boss you have been drafted and have got to go. Enough for now. Will see you in June.

#### ADDRESS CHANGES

These are corrections to lists published in the November and January issues of the REVIEW.

L. W. Burnham, VI, 107 Bradford Street, Needham 92, Mass.; C. J. Callahan, XI, 244 West Ninety-Ninth Street, New York City; C. P. Fiske, II, 147 Grove Street, Wellesley, Mass.; J. E. W. Giffels, II, 118 Main Street, Bradford, Mass.; S. M. Ginsburg, X, 526 West One Hundred Forty-Seventh Street, New York City; G. W. Harding, II, P. O. Box 402 Indian Head, Maryland; W. H. Leathers, II, Care of Pratt & Whitney Co., Hartford, Conn.; C. S. Lee, III, Santa Barbara, Calif.; E. L. O. Patten, II, 1264 West One Hundred Fourth Street, Cleveland, Ohio; H. W. Treat, II, 101 Depew Avenue, Buffalo, N. Y.; R. H. Tuttle, II, 4650 Freemont Avenue, South, Minneapolis, Minn.; F. Whitten, Jr., IV, Care of John H. Bickford Co., 6 Beacon Street, Boston, Mass.

#### NEW ADDRESSES

These are additions to the lists published in the November and January issues of the REVIEW.

F. L. Ahern, I, care of Coburn, Kittredge & Co., 10 State Street, Boston, Mass.; R. H. Annin, IV, 169 Billings Street, Quincy 71, Mass.; F. B. Barns, VI, 108 East Seventeenth Street, New York City; R. F. Barratt, IV, 133 Harrison Street, East Orange, N. J.; L. DeB. Bartlett, III, 4 Washington Street, Warren, R. I.; G. W. Blakeley, II, 202 Maplewood Street, Watertown 72, Mass.; L. B. Black, care of Sullivan Machinery Co., Ltd., 37 Colburne Street, Toronto, Ontario, Canada; A. P. Brown, II, 216 Lafayette Building, Philadelphia, Penn.; H. T. Chandler, X, 1020 Book Building, Detroit, Mich.; B. P. Crittenden, II, 303 East Seventh Street, Plainfield, N. J.; H. A. Deal, IV, care of F. T. Ley & Co., 19 West forty-fourth Street, New York City; DeVere Dierks, II, 700 Gates Building, Kansas City, Mo.; R. P. Dinsmore, X, care of Goodyear Tire and Rubber Co. of Calif., Los Angeles, Cal.; W. C. Eberhard, I, 133 Waverley Street, Waverley, Mass.; A. J. Finks, XIV, 133 Randolph Place, N. W., Washington, D. C.; C. R. Gardner, II, 11 Spring Hill Terrace, Somerville 42, Mass.; Morris Goldenberg, II, 6 Sutton Street, Mattapan, Mass.; E. R. Goodwin, Jr., II, 140 State Street, Albany, N. Y.; S. H. Harper, LV, 14 Hosmer Street, Watertown, Mass.; W. S. Hughes, V, care of J. M. Forbes & Co., Sears Building, Boston, Mass.; F. J. Jerome, I, 10917 South Oakley Avenue, Chicago, Ill.; E. W. Larkin, I, 75 Bloomfield Street, Springfield, Mass.; C. O. MacKinnon, I, 19 Walnut Street, Newburyport, Mass.; W. H. Monahan, VI, 60 Crescent Street, West Quincy 69, Mass.; John C. Morse, I, 311 Salem Avenue, Dayton, Ohio; A. W. Mudge, Jr., V, care of Antoine Chris Co., 18 Platt Street, New York City; R. J. Newsom, I, City Hall, Lynn, Mass.; M. I. Omansky, XI, 34 Auburn Street, Boston, Mass.; E. S. Parker, 51 Bowlett Street, Providence, R. I.; E. B. Peck, V, 213 High Street, Perth Amboy, N. J.; S. H. Rood, X, 53 Willar Street, Hartford, Conn.; A. C. Sherman, Jr., IV, 206 Huntington Avenue, Boston 17, Mass.; E. S. Shurtleff, III, care of Goodman Manufacturing Co., 317 Sycamore Street, Cincinnati, Ohio; H. G. Stewart, VII, Johns Hopkins Hospital, Baltimore, Md.; E. C. Taylor, XI, 25 Federal Street, Springfield, Mass.; F. J. Van Etten, I, 53 Mapleton Street, Brighton, Mass.; G. A. Wagner, VI, Lock Box 13, Stafford Springs, Conn.; J. M. White, VI, 145 West fifty-eighth Street, New York City; E. L. Williams, IV, tenth floor Marquette Building, Detroit, Mich.; Roger Williams, V, 1205 West thirteenth Street, Wilmington, Del.; C. E. Woodlock, 26 Farmington Avenue, Waterbury, Conn.

R. C. Brett, II, care of Southern Clay Manufacturing Co., Star Route Box 122, North Birmingham, Ala.; W. H. Brotherton, II, Station A, Route 2, Dallas, Tex.; V. C. Bronson, I, Howard Beach, Long Island, N. Y.; J. P. Burdick II, 88 Ayrault Street,

Providence, R. I.; P. Covitz, V, 1410 Grand Concourse, New York City; C. L. Cowles, VII, 7628 Perry Avenue, Chicago, Ill.; E. D. Dorchester, VI, 2014 Proctor Street, Port Arthur, Tex.; D. A. Fowle, IV, care of Allen & Collens, 40 Central Street, Boston, Mass.; A. H. Goldman, II, 149 Green Street, Jamaica Plain, Mass.; A. J. Hoyt, II, 408 Cook Avenue, Trenton, N. J.; C. R. MacKenzie, Fitzwilliam, N. H.; M. C. Mackenzie, II, 6 Twinehurst Place, Southbridge, Mass.; A. R. Miller, II, Care of Atlantic Corporation, Portsmouth, N. H.; Capt. E. E. Murphy, C. A. C., I, Fort Terry, N. Y.; C. L. Muzzey, VI, Lexington, Mass.; E. L. Osborne, I, Phi Gamma Delta Club, 34 West 44th Street New York City; H. D. Shaw, VI, Haworth, N. J.

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 1915

WILLIAM B. SPENCER, *Secretary*, 527 North Grove Street, East Orange, N. J.

FRANCIS P. SCULLY, *Assistant Secretary*, 5 Exeter Park, Cambridge, Mass.

Society news for this issue is limited principally to Course I. On February 21, 1920, Henry Dowst, Jr. married Miss Emma Mathilda Dauth of West Haven, Conn. We have no other information except the wedding announcement and the little clue in the January REVIEW as to where Henry has taken his bride. — "Joe" Livermore has picked a young lady, Miss Marjorie Virginia Stone of Ipswich, Mass. to be his bride at some later date. Miss Stone is at present a senior at the Salem Normal School. Evidently "Joe" is not going to allow his future wife to develop very strong disciplinary methods to be used in his training as a husband.

The secretary and Mrs. Spencer recently spent a very enjoyable evening with Mr. and Mrs. George Urquhart in East Orange, N. J. George is with Wheeler & Woodruff, chemical engineers, of 280 Madison Avenue, New York City. His work is along both lines of chemical research and the installation of chemical apparatus in manufacturing plants. George's daughter, Barbara, is a very delightful youngster. George had news of some of the 1915 men in and around New York City. — "Fritz" Staub is married, living in New York City and practicing architecture. "Parm" Sabin is with the firm of York & Sawyer, architects, 50 East Forty-fourth Street. Henry Leeb is with the Western Electric Co. "Doc" Munyan, "Doug" Baker, H. D. Swift, "Ken" Roy, H. Pickering, "Bennie" Landers, and "Hank" Marion are also known to be among the millions of people in the big metropolis, but definite information as to their addresses was lacking.

The office of the REVIEW kindly helps the secretaries of the classes in gathering news by sending them whatever newspaper clippings are found concerning Tech men. One of these clippings announced the engagement of Howard Clark Thomas, of West Newton, Mass., to a young lady of Newtonville. The clipping was labelled for H. C. Thomas of Course I. Knowing that Howard and Mrs. Thomas had recently been giving their untiring efforts to put over 1915's Endowment Drive, grave doubts arose in our minds concerning the meaning of this clipping. We could not imagine why Howard could be so bold as to have his engagement announced when he already was possessed of a very delightful wife and family. The truth of the matter came to light, however, when our records showed that our man is Howard Cushing Thomas, not Howard Clark. We wish this other lad good luck, but do not want to allow him to start any scandal concerning our esteemed classmate.

The secretary met "Bill" Mellema recently in New York. "Bill" has been in business nearly a year, in New York City in the firm of Thompson & Mellema, architects and engineers. He has been quite successful and now is contemplating an extended business trip to California.

Your pennies saved for the big Reunion in June ought to amount to a goodly sum by now. Get ready for the big hand shaking contest. You'll need a good grip when you meet the boys again.

From the assistant secretary:

The romance of the movies tells on the best of them. J. Arthur Ball, VIII, and Eastey Weaver, XIV, both connected with Kalmus, Comstock & Westcott and engaged in the development of the Technicolor pictures, have announced their engagement, Arthur Ball to Miss Isobel Osam of Cambridge and Eastey to (secretary omitted name). — Harvey Daniels who recently returned from China is another willing victim and is engaged to some young lady from New York. He expects to spend his honeymoon in China. — Henry Murphy, I, is now with the New England Structural Company in the sales department. — The building reports recently announced the award of a contract for a bridge



at Framingham, Mass., to Henry C. Sheils, I. Incidentally the engineers are Fay, Spofford, & Thorndike. Henry will have an opportunity to prove that his education was under competent professors.

1917

WALTER L. MEDDING, *Secretary*, Camp Gordon, Atlanta, Ga.

ARTHUR E. KEATING, *Assistant Secretary*, 893 Seaview Avenue, Bridgeport, Conn.

Since the appearance of the last TECHNOLOGY REVIEW it has been found necessary to move the 1917 home office across the hall to larger and more commodious quarters whereby the services could better be handled and performed. The great influx of mail matter addressed to the home office for forwarding as explained in the last issue of the REVIEW has made this necessary, and accordingly the old faculty room has been cut up into three offices one of which is being partially devoted to the class work. For the benefit of those who did not happen to read the January issue of the REVIEW, it may be well to explain that it was announced in that issue that a dress changes of the different members of the Class could not be printed on account of the lack of space and that an arrangement had been made whereby mail should be addressed to any member of the Class "Care of 1917 Home Office, Massachusetts Institute of Technology, Cambridge, Massachusetts. Special Rush. Forward Without Delay." This scheme has worked very well and a number of otherwise dormant acquaintances have been revived.

In conjunction with the expansion of the home office a Country Club has been established on the Concord River near Billerica. The old Tuttle estate has been loaned to the Class by our friend Ed, and this will be the scene of the special Class reunion next June according to the present plans of the committee. This is expected to be one of the chief features of the All-Technology Reunion and probably by the time this issue of the REVIEW is in the hands of its subscribers a number of circular letters will have informed every one concerning the definite arrangements.

The final results which the Class made on the Endowment Fund are given on another page of this issue, and we confidently believe that they speak for themselves, and that it is not necessary for us to blow our own horn since the results are sufficient evidence.

The following little item concerning Eddie Rounds appeared in the issue of the *Aerial Age Weekly* under date of March 22:

"Test flights conducted at Philadelphia with the R-6 Navy torpedoplane have proved successful. Lieut. E. W. Rounds piloted the machine, adjusting its balance in the air and trying out the strength of the pontoon system by making landings with the torpedo in position. The increased length of the pontoon, it is stated, indicated that satisfactory stability on the water had been obtained. Lieutenant Rounds and Lieut. W. G. Brown recently completed experiments at Hampton Roads in which recording instruments were carried to determine the rate of extension of longitudinal oscillation. Two F-5 boats were tried with fixed controls. About ten oscillations were distinguishable resulting from an initial disturbance."

Dick Catlett, Course X-A, an erstwhile Lieutenant in the 30th Engineers, a gas and flame outfit, was engaged up to December 1, with the International Coal Products Corporation of Newark working on the low temperature distillation of coal and the manufacture of briquettes, and is now a member of the firm of Charles E. Richardson & Company, doing a general engineering business in New York City.—Sam Clayman, another X-A man, is with the American Collins Manufacturing Company in Philadelphia, making coated papers and paper boxes. Since the first of March Frank N. Crane, Course I, has been located at Orange, California as a topographical draft-man for the City of Los Angeles.—Lawrence Davis, Course II, is mechanical superintendent in charge of engineering, plant maintenance, design, installation, construction and all plant equipment for the American Optical Company, Southbridge, Mass. (Looks like a large order, does it not?)—After a mining experience in British Columbia, Dusty Cronin has settled down as a draftsman at Whitehouse & Price in the Hutton Building, Spokane, Washington.—Paul F. Dudley, Course VI, is now with the United States Machinery Corporation.

A visit was enjoyed at the home office recently from Cy Medding. He tells us that he expects to leave the country soon, having passed his examinations and received a permanent commission as Captain of Engineers, for duty in the Canal Zone. In connection with Cy's staying in the Army, it is interesting to note that Bill Clark, Course I, has just resigned after spending the War in the Philippines. He informed us among other things that he accidentally met William F. Johnson, Course I, at a post dance at Corregidor one evening.

As noted some time ago Johnson had been ordered to Shanghai with the 15th Infantry but according to Bill Clark he got stuck at Manila. Nothing further has been heard. In connection with this foreign news we learn that our old friend E. B. Stockmann, Course XV, has just returned from Cuba where he went for the ostensible purpose of supervising a trial trip on a new steamer in which he (that is his company) just installed a brand-new mahogany bar. If this information is misleading we trust that E. B. will communicate with the home office. Failure to do so will mean that we will publish even more libelous information in our next issue.

E. D. Sewall dropped in from East Angus, Quebec, where he is engaged in making paper and bemoaning the fact that Canadian exchange is down. He is located not far from Paul Woodward, Course X, who is with the Laurentide Company at Grand Mere, but Nig says he has not heard very much from him.— Victor Dallmidge who spent three years with the Class doing graduate work in Course XII, is now with the British Columbia branch of the Canadian Geological Survey in Vancouver and according to good reports has written several books on the geology of the territory around Vancouver Island. It will be remembered by some that he was at the University of Manitoba before coming to the Institute. J. B. Dixon, Course V, is a research chemist with the Goodrich Tire and Rubber Company at Akron, and C. M. Dean is assistant department head and analytical chemist for the Merrimac Chemical Company. J. C. Fisher, Course VI, who spent a year here after taking a degree at Washington and Lee University, is an industrial power salesman with the Consolidated Gas, Electric Light and Power Company of Baltimore.— The following notice will be of interest to friends of Dick Lyons:

"Robert M. Briggs, Charles E. Enlow and Richard T. Lyons announce their partnership under the name of Briggs, Enlow & Lyons for the purpose of dealing in oil, gas leases, royalties and production, making examinations and appraisals of petroleum properties. This firm is located in The Massie Building, Amarillo, Texas, for the convenience of their clientele."

Penn Brooks is now trying to keep down the price of gold-dust and fairy soap as assistant to the operating vice-president of the American Cotton Oil Company.— Paul Leonard is pushing the merits of the Haynes car in New England to the limit in his capacity as general sales manager for W. L. Russell & Company, dealers in Haynes, Anderson, and Service Trucks. According to latest advices he sold forty cars at the Automobile Show here; this in spite of the fact that the Marmon booth next to his showed a more flexible engine (this is pretty good; if you do not believe it, write Paul).

Good news has been received from Ray Brooks who says that he expects to get out of the Army by June. He also tells us that Wesshawes and John Poteat have just become engaged, but that he has forgotten just whom they are engaged to. The following clipping from the *Transcript* will be of great interest to friends of J. L. Wettlaufer, Course XIV:

"Mrs. H. M. Carney of 40 The Fenway announces the engagement of her granddaughter, Miss Louise Hill to Jules Louis Wettlaufer of New York City. Miss Hill, whose home is also at 40 The Fenway, is the younger daughter of the late Warren May Hill and Mary (Carney) Hill and the granddaughter of the late William H. Hill, the Boston banker, who was of the old-time firm of Richardson, Hill & Co. She is a grandniece of the late Andrew Carney, founder and benefactor of Carney Hospital in South Boston. Miss Hill's only sister, formerly Miss Frances Hill, married Jay Rogers Benton of Belmont, their present home. Mr. Wettlaufer, who is the son of Mrs. Dora Wettlaufer and the late Otto Wettlaufer of New York, has been a student at the Massachusetts Institute of Technology and later studied at the School of Finance, New York University. He is a member of the Chi Phi Fraternity and belongs to the Tech Club of New York. He is now associated in business with A. R. King, Incorporated, manufacturers in Philadelphia. In honor of her engagement and to make it known to some of her intimate friends Miss Hill entertained at luncheon today at her home in The Fenway. The group at table numbered twelve."

Here is another one about Gordon E. Crosby, Course I, from the Newport, Rhode Island, *News*.

"The wedding of Miss Florence Maria Plummer and Mr. Gordon Eugene Crosby took place this afternoon at the home of Mr. and Mrs. Charles Sumner Plummer, the bride's parents, in Portsmouth. Miss Plummer was attended by her nephew, Marshall Cornine, Jr., as ring-bearer, and Mr. Crosby by Mr. Lewis Barlow Plummer, brother of the bride. Rev. Mr. Everett P. Smith of St. Mary's Church officiated, and the bride was given away by her father. Groff's orchestra rendered the following selections, favorites of the bride and groom: 'I love you truly,' Bonds, 'To a Wild Rose,' MacDowell, 'O promise me,' De Koven, and Brahms's 'Lullaby,' which was sung at Miss Plummer's graduation in Boston. Miss Plummer wore white georgette, the wedding dress of her

sister, Mrs. Julian Nichols Johnson. Her veil of point appliqué was loaned by Mrs. Everett Pepperell Smith, for whom it was made in Glasgow, Scotland. The bride's only ornaments were a platinum brooch set with sapphires and pearls, and a ring set with an aquamarine, both gifts of the groom. The bride and groom left after the reception for a short trip, returning to Newport for a few days, after which they leave for Remson, Iowa, where they will reside. Miss Plummer is a graduate of Niel's Kindergarten School, Boston. She has been assisting Miss Eleanor L. Freeman in her private school, teaching music, games and folk dancing. Mr. Crosby is a graduate of the Massachusetts Institute of Technology, Class of 1917; he is a member of the Theta Chi fraternity."

The following from the Boston *Herald* is submitted for your consideration:

"Harold E. Lobdell and J. M. DeBell, graduates of Massachusetts Institute of Technology in the Class of 1917, have been appointed assistants to W. H. Walker, in the new Division of Industrial Co-operation and Research at Technology. The 'Technology plan,' as the new division at Technology is known, has contracts now with one hundred eighty different concerns throughout the country, aggregating one million one hundred forty-three thousand six hundred twenty-five dollars."

E. P. Warner, II, takes time off every now and then to lecture on aeronautics at the Institute.—F. L. Ford, IV, is reported as being with an industrial engineering concern near Boston, but will have to prove it to us.—Watervliet Arsenal was too far west for Ed Polley, II, so he moved to the Eastern Manufacturing Co., Bangor, Maine.—Ken Richmond, II, broke into print in the *National Geographic* recently as a member of Admiral Straus' staff. He looked quite natural.

B. T. Hall, II, has gravitated back to New York, and can be reached at 30 East Forty-Second Street. (Brander & Curry, Inc.) B. T. writes: "I would be pleased if any of the members of 1917 who are in town would look me up and I would like to have them come out to my house for a real good feed, as I know that any of them that are living in hotels would certainly appreciate it." Dwellers at the McAlpin take notice.—Stan Robertson, X, is assistant to the plant engineer (mechanical, not botanical), at the Dennison Manufacturing Company. Phil Yeaton, VI, is bringing up a lot of little textile engineers at the Lowell Textile School.

We read on the letterheads of the Texas Implement Manufacturing Co. of McGregor, Texas, "R. N. Gay, General Manager." Bob says: "Your reference to the old crowd which are still sticking around Boston makes me wish circumstances had been such that I would now be hanging my hat in the same place. The old enthusiasm has a tendency to slow up a bit when two thousand miles away, so I suppose the proper thing to do is to make a trip up some time in the near future, and bust in on the gang."—Ed Tuttle, VI, is perfecting processes, the more so since Bill Gray, III, is troubled with consumption. Federal agents need not apply.

Horace Baxter is the third assistant examiner in the United States Patent Office, and we understand that he is watching the wheels go around and seeing that the cogs mesh. Incidentally the latest advice is (and although this stock is not guaranteed we have every reason to believe that its value is as represented) Horace expects to be married in June.—Lewis Gorfinkle is a ship's draftsman at the Boston Navy Yard.

Jimmy Spalding who spent a year or so around the Institute back in the early days of the Class and was particularly noted as an active man on the then *Technology Monthly* and *Harvard Engineering Journal*, has turned up in California doing some unknown work. Most of his time since leaving Tech has been spent in Honolulu, but he has decided to desert said fair clime and locate in the land of orange, citron and lemons.

Walter C. F. Gartner after his naval aviation experience is now located as employment manager of the Aberthaw Construction Company. Clif Carlton, III, is now in Chile with the Chile Exploration Company. R. R. Gauger, IV, is back studying the features of architectural design around Copley Square, all of which reminds us that on the Class Day Committee ballot, Class of 1920, we find the names of some score of loyal '17 men who have found their way back to the academic fold after more or less heart-rending experiences in the strife and turmoil of business life. Although we have omitted the complete list, by request of Ed Tuttle, II, whose name appears thereon, we cannot forbear to mention the fact that Ken Bell, X, is proudly a candidate even though he is listed as on the staff of the Research Laboratory of Applied Chemistry. We hope that Ken will sometime be able to impress Technology undergraduates with the dignity and importance of his position on the staff of said laboratory.

W. B. Ford, IV, is with the Firestone Tire and Rubber Company at Akron, Ohio, in the office manager's office. It is said that Dud Bell is organizing a Philadelphia 1917 Club, but we doubt it, since he has told us nothing of it, and we feel sure that we are in his confidence. Moreover word had not gotten around to Mack Angas who is still

directing Naval Construction affairs in the Philadelphia district along with Frank Butterworth.

The ice on the Charles is busted, and the plants are looking up from underground after a long winter. Hoping you are the same, 1917 *Home Office*.

Just before going to press, the Home Office received the following sad news, clipped from the *Berkshire Courier* (Mass.):

"Carl Jeffrey Heath, only son of Mrs. Rose Heath, died April 4, of pneumonia, at the home of his mother in the village of Interlaken. He was a graduate of the Williams High School, was a pupil for one year at the Phillips-Andover Academy and a student of the Massachusetts Institute of Technology, Class of 1917, where he was given the degree of B.S. He went into the service and was at Camp Hancock, Ga., and Camp Raritan, N. J. He was a member of the Interlaken Congregational Church, of the Pittsfield Young Men's Christian Association, and the American Engineering Society. He was a young man of sterling character, a general favorite among all who knew him. His death will carry sorrow to a large circle of relatives and friends. His engagement to Miss Ruth Miett of Milford had been announced and she was with him when he died. Besides his mother, he is survived by one sister, Miss Frieda Heath, a student at the Westfield Normal School. The funeral was held Wednesday afternoon at three o'clock, at the home. Burial was in Stockbridge."

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#### 1918

DAVID M. MACFARLAND, *Secretary*, 306 Bay State Road, Boston, Mass.

JULIAN C. HOWE, *Assistant Secretary*, Cohasset, Mass.

Mr. and Mrs. George F. Mead of 77 Appleton Street, Arlington Heights, formerly of Lexington, announce the engagement of their daughter, Miss Mildred Wallace Mead, to Charles H. Watt of 14 Hill Street, Lexington. Miss Mead after her graduation from Lexington High School in 1914 attended the Boston School of Painting. Mr. Watt was a member of Course III at the Institute and was awarded a degree from Harvard University in addition to the one from the Institute. During the war he served as lieutenant in the Field Artillery and since leaving the service has been connected with the American Zinc Company, at Mascot, Tennessee.

Percy W. Carr, X, is now with the Alphena Leather Company of Alphena, Mich., where he is in charge of the technical work. — Ralph G. Mahoney, II, has returned to the Institute as Assistant Instructor in the Engine Laboratory. — L. H. Marshall, X, is employed by the Ohio Brass Company, of Mansfield, Ohio, as metallurgist. — E. A. Grunsfield, IV, is connected with the firm of Grunsfield & Stein, architects, of New York.

K. Reid, IV, is still stationed at Portsmouth Navy Yard and seems to be unable to resign his commission as lieutenant in the Construction Corps.

Miss Margaret R. Dickhaut, daughter of Henry Dickhaut of Jamaica Plain, was married to Arthur James Marsh of Boston. The ceremony took place at the Copley-Plaza Hotel. Mr. Marsh was a member of Course IV at the Institute and after his graduation served in the Aviation Corps. Mr. and Mrs. Marsh are now living in Belmont. — The engagement of Miss Maxine Harriet Nichols to Mr. Earl Preston Collins has just been announced. Mr. Collins was a member of Course X and during his undergraduate career wrote much of the music for several of the Tech Shows.

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#### 1919

E. R. SMOLEY, *Secretary*, The Horse Head Inn, Palmerton, Penn.

The mailman had an easy time during the last few months, as far as handling 1919's mail to their secretary.

When the Alumni Reunion date is set and flashed across the wires, jot it down in your "social calls kept straight", at once, don't let anything interfere with your being there. Here's for a real 1919 class representation at the blowout.

Ev Doten, after cleaning up his work on the Endowment Fund committee, has tripped to Muskegon, Michigan, where he is engaged in the manufacture of integral camshafts.

Marshall Balfour very wisely decided to spend his winter in the warm South. Bal is at present placing his fingers on the germs and bacteria that inhabit Macon, Georgia, for he is acting in the capacity of City Bacteriologist.



D. C. Hall, X, has taken up the duties of a chemist with the New Jersey Zinc Company and is located at Palmerton, Pa.

Mr. G. Fleming besides filling the bill in the research department of the New Jersey Zinc Company at Palmerton, Pa., is at present one of the "Epstein", Brothers, composers and producers of musical comedies presented at Palmerton. George MacCarten, R. Burbank, Doc Flynn, are still batting at their respective positions with the above mentioned company at Palmerton, Pa.

This column is very abbreviated this issue. Why? It's up to the members of the Class to send in their news if they expect to read others' contributions.

## TECH NIGHT at the "POPS"

JUNE 11, 1920

Under the auspices of the  
CLASS DAY COMMITTEE

Special music by the  
UNDERGRADUATE  
MUSICAL CLUBS

All Alumni are urged  
to attend